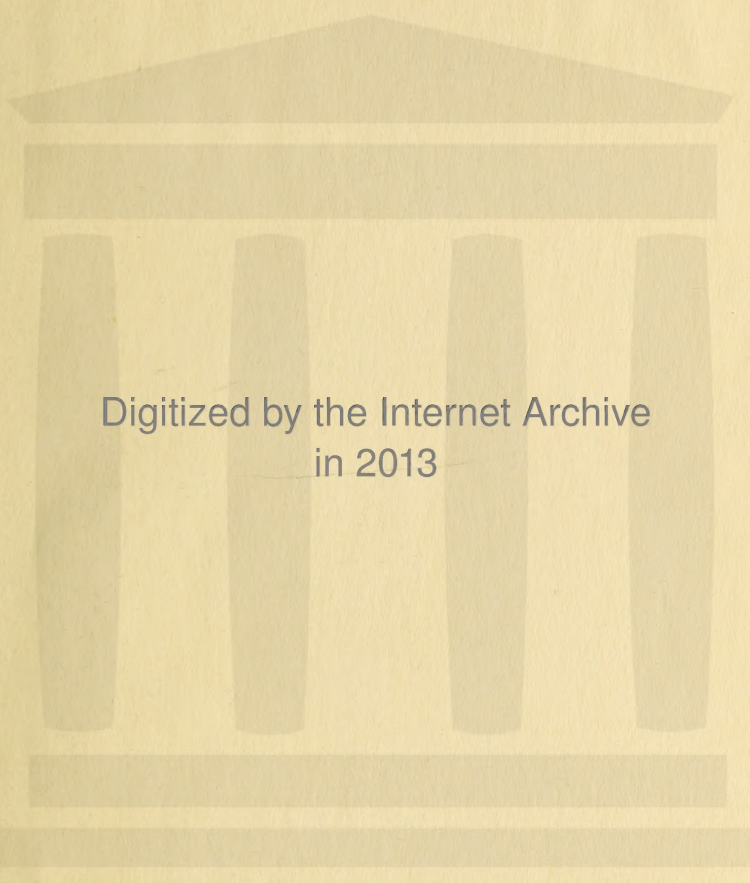


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DOMINION OF CANADA

ANNUAL
DEPARTMENTAL
REPORTS

1929-30

VOL. II



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

ANNUAL DEPARTMENTAL REPORTS

VOLUME I

Auditor General, for the fiscal year ended March 31, 1930.

VOLUME II

Public Accounts, for the fiscal year ended March 31, 1930.

National Revenue, Department of, (Customs and Excise), containing accounts of Revenue with statements relative to the Imports, Exports, Excise and Income of the Dominion of Canada, for the fiscal year ended March 31, 1930.

National Revenue, Department of, (Shipping Report, Customs), containing the Statements of Navigation and Shipping for the fiscal year ended March 31, 1930.

Trade and Commerce, Department of, for the fiscal year ended March 31, 1930.

Weights and Measures Inspection Service (Trade and Commerce), for the fiscal year ended March 31, 1930.

Electricity and Gas Inspection Services (Trade and Commerce), for the fiscal year ended March 31, 1930.

Board of Grain Commissioners for Canada (Trade and Commerce), for the crop year ended August 31, 1930.

Interior, Department of the, for the fiscal year ended March 31, 1930.

Immigration and Colonization, Department of, for the fiscal year ended March 31, 1930.

Indian Affairs, Department of, for the fiscal year ended March 31, 1930.

Mines, Department of, for the fiscal year ended March 31, 1930.

Agriculture, Department of, for the fiscal year ended March 31, 1930.

National Defence, Department of, (Militia and Air Service), for the fiscal year ended March 31, 1930.

National Defence, Department of, (Naval Service), for the fiscal year ended March 31, 1930.

Pensions and National Health, Department of, for the fiscal year ended March 31, 1930.

Public Printing and Stationery, Department of, for the fiscal year ended March 31, 1930.

VOLUME III

Superintendent of Penitentiaries, for the fiscal year ended March 31, 1930.

Royal Canadian Mounted Police, for the year ended September 30, 1930.

Secretary of State, Department of the, for the fiscal year ended March 31, 1930.

Commissioner of Patents, for the fiscal year ended March 31, 1930.

Archives, for the year 1930.

Civil Service Commission, for the calendar year ended December 31, 1930.

External Affairs, Department of the Secretary of State for, for the fiscal year ended March 31, 1930.

Labour, Department of, for the fiscal year ended March 31, 1930.

VOLUME IV

Marine and Fisheries (Marine), Department of, for the fiscal year ended March 31, 1930.

Marine and Fisheries (Fisheries), Department of, for the fiscal year ended March 31, 1930.

Post Office Department, for the fiscal year ended March 31, 1930.

Public Works, Department of, for the fiscal year ended March 31, 1930.

Railways and Canals, Department of, for the fiscal year ended March 31, 1930.

Board of Railway Commissioners for Canada, for the calendar year ended December 31, 1930.

Chief Electoral Officer (By-elections), for the year 1930.

Chief Electoral Officer (General Election), for the year 1930.

VOLUME V

Trade of Canada (Imports for Consumption and Exports), for the fiscal year ended March 31, 1930.

CANADA

PUBLIC ACCOUNTS

FOR THE

FISCAL YEAR ENDED MARCH 31,

1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

*To His Excellency the Right Honourable Freeman Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief of
the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY,—

The undersigned has the honour to present to Your Excellency the Public Accounts of Canada for the Fiscal Year ended March 31, 1930.

All of which is respectfully submitted.

R. B. BENNETT,
Minister of Finance.

OTTAWA, January 2, 1931.

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DEPARTMENT OF FINANCE,

OTTAWA, January 2, 1931.

The Right Honourable R. B. BENNETT,
Minister of Finance.

SIR,—I have the honour to submit to you the Public Accounts of Canada for the fiscal year ended March 31, 1930.

ORDINARY RECEIPTS AND EXPENDITURES

The receipts for the year on account of Consolidated Fund amounted to \$441,411,806.18, and the expenditure on the same account to \$357,779,794.07, showing a surplus of ordinary receipts over ordinary expenditures of \$83,632,012.11.

SPECIAL RECEIPTS AND EXPENDITURES

In addition to the ordinary receipts and expenditures there were special receipts and credits of \$4,540,479.42 and special expenditures and charges of \$9,839,016.32, leaving an excess of \$5,298,536.90 of expenditures over receipts as a charge to Consolidated Fund:—

Special Receipts—

War and Demobilization Receipts— Refunds of Expenditures of Previous Years	\$ 35,293 78
Payments received on account of Reparations from Germany.....	4,325,274 30
Miscellaneous receipts and credits to Consolidated Fund	179,911 34
	<hr/> \$ 4,540,479 42

Special Expenditures—

Reparations—Claims for compensation..	6,700,000 00
Civil Service Superannuation Act, 1924 (Government contribution to the Fund).....	1,892,590 92
Miscellaneous charges to Consolidated Fund.....	1,246,425 40
	<hr/> 9,839,016 32

Excess of Special Expenditures over Special Receipts	<hr/> \$ 5,298,536 90 <hr/>
---	-----------------------------

DEPARTMENT OF FINANCE

CAPITAL EXPENDITURES

The following outlays were made during the year and charged to Capital:—

Canals (Schedule FF)	\$10,264,186 79
Railways (Schedule GG)	6,873,510 86
Public Works (Schedule HH)	8,589,022 02

Total Capital Expenditure	<u>\$25,726,719 67</u>
-------------------------------------	------------------------

The following transfers and refunds of Expenditures of Previous Years were credited to Capital Account:—

Canals (Schedule FF)	\$ 940,010 15
Railways (Schedule GG)	210,073 03
Public Works (Schedule HH)	2,015,492 48
	<u>\$ 3,165,575 66</u>

Net charge to Capital Account	<u>\$22,561,144 01</u>
---	------------------------

LOANS TO RAILWAYS

Loans to the Canadian National Railway Company to the amount of \$2,932,652.91 were made under authority of the Appropriation Act of 1929.

LOANS TO CANADIAN NATIONAL STEAMSHIPS

Loans to the Canadian Government Merchant Marine Limited of \$1,628,907.21 and the Canadian National (West Indies) Steamships Limited of \$862,389.98 making a total of \$2,491,297.19 were made under authority of the Appropriation Act of 1929.

DEBT

The net debt of the Dominion at the close of the fiscal year was \$2,177,763,958.71 or a decrease of \$47,740,746.39 under the net debt as it stood on March 31, 1929.

The decrease is accounted for as follows:—

REVENUES—

Ordinary Revenue	\$441,411,806 18
Special Receipts	4,540,479 42
	<u>\$445,952,285 60</u>
Sundry Credits—	
High Commissioner's Suspense	2,187 78
Unpaid Coupons—New York Loans Suspense	200 00
Railway Accounts—Amount trans- ferred from Railway Equip- ment Account	228,319 89
	<u>230,707 67</u>
	<u>\$446,182,993 27</u>

DEBT—*Concluded*

EXPENDITURES—

Ordinary Expenditure	\$357,779,794 07
Special Expenditure	9,839,016 32
Capital Expenditure (net)	22,561,144 01
Loans to Canadian National Railways	2,932,652 91
Loans to Canadian National Steamships Limited	2,491,297 19
Loans to Quebec Harbour Commissioners	2,821,000 00
Payment on account of Toronto Barracks site, which amount was previously set off against Military Property and Stores Account	1,250 65
Bonds, Interest, and Notes adjustment Account, written down as non-active	16,091 73
	<hr/> \$398,442,246 88

Net decrease of Debt \$ 47,740,746 39

FUNDED DEBT

The $4\frac{1}{2}$ per cent Refunding Loan issued February 1, 1926 amounting to \$20,000,000 matured February 1, 1930, also the balance outstanding of the $5\frac{1}{2}$ per cent New York Loan issued August 1, 1919 amounting to \$54,577,800 matured August 1, 1929, and both were redeemed.

SAVINGS BANK

At the close of the fiscal year, the balance at the credit of depositors in the Post Office Savings Bank was \$26,086,036.03, a decrease of \$2,289,733.71 under the balance held on March 31, 1929. The withdrawals for the year exceeded the deposits by \$3,074,315.60, while \$784,581.89 was added for interest accrued.

INVESTMENTS

SINKING FUNDS

Investments on account of Sinking Funds of the various loans were made during the year to the amount of \$4,011,574.52. The total of the investments at the credit of the Sinking Funds, which stood at \$52,079,198.30 on March 31, 1929 was therefore increased to \$56,090,772.82 on March 31, 1930.

ADVANCES TO HARBOUR COMMISSIONERS

Advances were made under statute to the following Harbour Commissioners:—

Chicoutimi Harbour Commissioners	\$ 815,000 00
Halifax Harbour Commissioners	1,272,000 00
Montreal Harbour Commissioners	4,336,000 00
Quebec Harbour Commissioners	2,821,000 00
St. John Harbour Commissioners	1,711,000 00
Three Rivers Harbour Commissioners	136,000 00
Vancouver Harbour Commissioners	345,000 00

\$ 11,436,000 00

During the year, \$3,000,000 of Montreal Harbour Commissioners' debentures held by the Dominion matured and \$1,000,000 of these debentures were paid.

CANADIAN FARM LOAN BOARD

During the year \$2,400,000.00 was advanced to the Board as Initial Capital; also Capital Stock of the Board was purchased to the amount of \$59,023.00.

LOANS TO BANKS

Under authority of the Finance Act R.S.C. 1927, advances during the year to an aggregate amount of \$660,250,000 were made by way of issues of Dominion Notes to various banks. On April 1, 1929 the outstanding balance on this account was \$83,500,000. During the year repayments were received to the amount of \$693,550,000 leaving a balance of \$50,200,000 outstanding at the close of the year.

SOLDIER AND GENERAL LAND SETTLEMENT

The loans outstanding to soldiers settling on the land and for General Land Settlement decreased during the year by \$4,776,571.47 of which \$3,637,172.69 was written off to Consolidated Fund on account of the revaluation of loans to soldier settlers. This leaves a balance outstanding at the close of the year of \$74,681,411.26 of which \$57,036,174.50 is carried as an Active Asset. The balance of \$17,645,236.76 is carried as a Non-Active Asset.

HOUSING LOANS

The Provincial Governments reduced their indebtedness to the Dominion on account of Housing Loans by \$1,754,500 as follows:—

Province of Manitoba.....	\$ 50,000 00
Province of New Brunswick.....	62,000 00
Province of Nova Scotia.....	135,000 00
Province of Quebec.....	1,507,500 00
	<hr/>
	\$1,754,500 00

This leaves a balance outstanding March 31, 1930 of \$11,311,202.72.

FOREIGN GOVERNMENTS

Foreign Governments have paid all interest due on their obligations. The Government of Greece, under agreement, paid \$215,000 on account of principal. The outstanding foreign debts are thus reduced to \$6,865,000 owing by Greece and \$23,969,720 owing by Roumania.

DOMINION NOTES

The circulation of Dominion Notes stood at \$174,326,618.30 on March 31, 1930, being a decrease of \$30,174,598.24 as compared with the circulation at the close of the last year. Gold held as security amounted to \$63,280,836.34. Of the total amount of Notes outstanding, \$50,200,000.00 were against approved securities held by the Department under the Finance Act.

GUARANTEED SECURITIES

CANADIAN NATIONAL RAILWAY COMPANY:—

An issue of \$60,000,000 Canadian National Railway Company 5% 40-Year Bonds dated July 1, 1929, was guaranteed as to principal and interest. The

bonds were sold to Dillon, Read & Company, New York, at 98.1597 and accrued interest. The proceeds were used, in part, to retire a bank loan of \$40,000,000 contracted in 1928. The issue was made under the following authority:

Appropriation Act, 1927, Vote 408.....	\$ 5,900,000 00
Appropriation Act, 1928, Vote 408.....	11,351,890 40
Canadian Northern Income Charge Act, 1928.	23,175,000 00
Appropriation Act, 1929, Vote 336.....	19,573,109 60
	<hr/>
	\$ 60,000,000 00

As of October 1st, 1929, guarantee was given to an issue of \$60,000,000 5% 40-Year Bonds of the Canadian National Railway Company. Chase Securities Corporation, New York, and associates purchased \$55,000,000 of the bonds at 96.53 and accrued interest, \$5,000,000 being reserved for employees' subscriptions. Of the latter amount, \$1,800,000 was subscribed at 98 and accrued interest and the balance, \$3,200,000, was sold in December, 1929, to Chase Securities Corporation at 99.17 and accrued interest. The issue was made under the following authority:

Appropriation Act, 1929, Vote 336.....	\$ 30,083,695 71
Branch Lines Construction, Special Acts:	
1927/30 program	1,900,000 00
1929/32 program.....	6,810,609 60
Toronto Terminals Railway Act.....	232,516 03
Canadian National Montreal Terminals Act..	7,300,000 00
Acquisition of Railways, Special Acts, 1929:	
Quebec, Montreal & Southern Railway....	6,198,645 41
Inverness Railway	387,415 34
Kent Northern Railway.....	61,986 45
Quebec Oriental Railway and the Atlantic,	
Quebec & Western Railway.....	3,615,876 49
Northern Alberta Railways.....	3,409,254 97
	<hr/>
	\$ 60,000,000 00

An issue of \$18,000,000 Canadian National Railway Company 5% 40-Year Bonds dated February 1, 1930, was guaranteed as to principal and interest. The issue was made under the Canadian National Refunding Act, 1929, to refund a like amount of the Company's 4½% Guaranteed Bonds due February 15, 1930, and was sold to Dillon, Read & Company, New York, at 98.086 and accrued interest.

CANADIAN NATIONAL (WEST INDIES) STEAMSHIPS, LIMITED:—

As of March 1st 1930, an issue of \$9,400,000 25-Year 5% Bonds of the Canadian National (West Indies) Steamships, Limited, was guaranteed as to principal and interest. The issue was sold to Dillon, Read & Company, New York, at 99.177 and accrued interest. The issue was made to repay temporary bank loans contracted during the period of construction of vessels for the West Indies service. The \$10,000,000 4¼% temporary bonds guaranteed in 1928 as security for such loans were redeemed and cancelled.

HARBOUR COMMISSIONERS OF MONTREAL:—

Under authority of Chap. 58 of the Statutes of 1924, an issue of \$19,500,000 5% 40-Year Bonds of the Harbour Commissioners of Montreal, dated November 1, 1929, was guaranteed as to principal and interest. Of the authorized amount, \$18,500,000 were sold to Wood, Gundy & Company, Limited, at 98 and accrued interest. The issue was made to repay temporary bank loans and provide for the balance of the construction cost of the Montreal-South Shore Bridge. The \$17,000,000 Interim Debentures issued and guaranteed in connection with the temporary financing, were redeemed and cancelled.

Respectfully submitted,

WATSON SELLAR,
Assistant Deputy Minister of Finance.

BALANCE SHEET

REVENUE AND EXPENDITURE

CONDENSED CASH STATEMENT



SCHEDULES

COMPARATIVE TABLES

APPENDICES

THE DOMINION

BALANCE SHEET

ASSETS—	\$	cts.
Cash.....	27,991,597	06
Specie Reserve, per schedule A.....	65,927,474	08
Advances to Provinces, Banks, etc., per schedule B.....	140,578,125	72
Advances to Foreign Governments, per schedule C.....	30,834,720	00
Soldier and General Land Settlement Loans, per schedule D.....	57,036,174	50
Miscellaneous Current Accounts, per schedule E.....	44,454,360	89

Balance being Net Debt March 31, 1930 (exclusive of
interest accrued) carried forward.....2,177,763,958 71

2,544,586,410 96

Balance Net Debt represented by:—

(A) Expenditure—

Public Works, Canals, per schedule F.	\$223,936,777	90
Public Works, Railways, per schedule G.	429,320,231	93
Public Works, Miscellaneous, per schedule H.....	223,889,430	60
Military Property and Stores, per schedule I.....	12,035,420	50
Territorial Accounts, per schedule J....	9,895,947	68
Railway Accounts (old), per schedule K.	88,398,828	78
Railway Accounts (Loans non-active), per schedule L.....	614,451,572	65
Canadian National Steamships, (Loans non-active), per schedule M.....	13,723,807	04
Miscellaneous Investments and Other Accounts (non-active), per schedule N.....	40,791,044	20
	<u>1,656,443,061</u>	28

(B) Balance Consolidated Fund brought forward from March 31, 1929.....	595,922,837	06
Excess of Revenue over Expenditure, year ended March 31, 1930.....	74,601,939	63
	<u>521,320,897</u>	43
	<u>2,177,763,958</u>	71

OF CANADA

MARCH 31, 1930

LIABILITIES—

	\$	cts.
Dominion Notes in Circulation.....	174,326,618	30
Bank Circulation Redemption Fund.....	6,363,361	59
Post Office Account, Money Orders, Postal Notes, etc., outstanding.....	5,091,767	86
Post Office Savings Bank Deposits.....	26,086,036	03
Insurance and Superannuation Funds, per schedule O...	70,422,860	54
Trust Funds, per schedule P.....	20,976,277	07
Contingent and Special Funds, per schedule Q.....	713,948	01
Province Accounts, per schedule R.....	9,623,816	77
Funded Debt, per schedule S—		
Unmatured.....	\$2,227,368,872	51
Matured and Outstanding.....	759,756	54
	2,228,128,629	05
Interest Due and Outstanding, per schedule T.....	2,853,095	74
	2,544,586,410	96

Balance Net Debt March 31, 1930, brought forward.....2,177,763,958 71

We have examined the attached Balance Sheet of The Dominion of Canada of March 31, 1930, and have obtained all the information and explanations required by us.

We certify that in our opinion, the said Balance Sheet, with accompanying Schedules A to T and V, is properly drawn up so as to exhibit a true and correct view of the financial position of the Dominion of Canada at March 31, 1930, according to the information and explanations received by us and as shown by the Books of Account of the Dominion.

P. S. ROSS AND SONS,
Chartered Accountants

2,177,763,958 71

NOTE.—Indirect Liabilities—

Guarantees given by the Dominion of Canada are listed in Schedule V.

THE DOMINION

EXPENDITURE AND

YEAR ENDED

EXPENDITURE

Ordinary

	\$	cts.
Agriculture, per schedule No. 1.....	10,245,323	36
Finance, per schedule No. 2.....	3,215,319	40
“ Interest on Public Debt, per schedule No. 2.....	121,566,213	21
“ Subsidies to Provinces, per schedule No. 2.....	12,496,958	50
Fisheries, per schedule No. 3.....	2,425,738	51
Immigration and Colonization, per schedule No. 4.....	3,093,881	22
Indian Affairs, per schedule No. 5.....	5,332,503	55
Interior, per schedule No. 6.....	8,489,905	46
Justice, per schedule No. 7.....	5,152,421	61
Labour, per schedule No. 8.....	2,646,991	12
Legislation, per schedule No. 9.....	2,339,007	28
Marine, per schedule No. 10.....	8,943,812	67
Mines, per schedule No. 11.....	1,412,666	45
National Defence, per schedule No. 12.....	21,891,541	61
National Revenue, per schedule No. 13.....	13,843,871	01
Pensions, per schedule No. 14.....	40,406,565	12
Pensions and National Health, per schedule No. 15.....	9,884,095	71
Post Office, per schedule No. 16.....	36,557,012	09
Public Works, per schedule No. 17.....	19,819,031	79
Railways and Canals, per schedule No. 18.....	11,522,884	15
Royal Canadian Mounted Police, per schedule No. 19.....	2,948,443	07
Soldier and General Land Settlement, per schedule No. 20....	1,362,121	86
Trade and Commerce, per schedule No. 21.....	6,606,421	22
Other Departments, per schedule No. 22.....	2,953,943	63
Miscellaneous, per schedule No. 23.....	2,622,120	47

357,779,794 07
Special

Adjustment of War Claims, per schedule No. 24.....	\$	94,995	75
Cost of Loan Flotations, per schedule No. 25.....		17,071	29
Miscellaneous Charges, per schedule No. 26..	3,026,949	28	
Reparations—Claims for Compensation.....	6,700,000	00	

9,839,016 32

Non-Active Accounts written off and charged to Consolidated Fund, per schedule No. 27.....	3,731,535	58
Balance being excess of Revenue over Expenditure carried to Consolidated Fund.....	74,601,939	63

445,952,285 60

CAPITAL

EXPENDITURE

	\$	cts.
Canals, per schedule F.F. (to cash statement).....	10,264,186	79
Railways, per schedule G.G. (to cash statement).....	6,873,510	86
Public Works, per schedule H.H. (to cash statement).....	8,589,022	02

25,726,719 67

PUBLIC ACCOUNTS

OF CANADA
REVENUE ACCOUNT

MARCH 31, 1930

	REVENUE			
	Ordinary	\$	cts.	\$ cts.
National Revenue, per schedule No. 28—				
Customs Import Duties.....	179,429,920	46		
Excise Duties.....	65,035,701	42		
Sales Tax, Tax on Cheques, Transportation Tax, etc.....	63,409,143	14		
Income Tax.....	69,020,726	23		
Business Profits Tax.....	173,300	45		
Sundry Collections.....	1,089,864	70		
				378,158,656 40
Finance, per schedule No. 29—				
Chartered Banks.....	1,408,419	60		
Insurance Companies.....	74,415	87		
Interest on Investments.....	13,518,204	62		
Sundry collections.....	1,044,949	83		
				16,045,989 92
Interior, per schedule No. 30.....				4,189,398 05
Marine, per schedule No. 31.....				801,205 32
Patent and Copyright Office, per schedule No. 32.....				576,521 77
Post Office, per schedule No. 33.....				33,348,043 89
Public Works, per schedule No. 34.....				663,523 43
Railways and Canals, per schedule No. 35.....				1,285,605 30
Trade and Commerce, per schedule No. 36.....				3,157,379 49
Other Departments, per schedule No. 37.....				3,185,482 61
				441,411,806 18
<i>Special</i>				
War and Demobilization Receipts, per schedule No. 38.....	35,293	78		
Miscellaneous Receipts and Credits, per schedule No. 39.....	4,505,185	64		
				4,540,479 42
				445,952,285 60

ACCOUNT

	RECEIPTS	\$	cts.
Canals, per schedule F.F. (to cash statement).....		940,010	15
Railways, per schedule G.G. (to cash statement).....		210,073	03
Public Works, per schedule H.H. (to cash statement).....		2,015,492	48
Balance carried to Capital Account.....		22,561,144	01
		25,726,719	67

CONDENSED CASH

YEAR ENDED

RECEIPTS

	\$	cts.	\$	cts.
Balance from fiscal year 1928-29—				
Banks in Canada.....	52,584,441	37		
Banks in New York.....	29,196,725	56		
Bank of Montreal, London, England..	629,717	68		
			82,410,884	61
Bank Circulation Redemption Fund.....			264,778	29
Province of Nova Scotia, Suspense Account.....			3	89
Advances to Foreign Governments, per schedule AA.....			215,000	00
Insurance and Superannuation Funds, per schedule BB.....			8,972,025	63
Trust Funds, per schedule CC.....			638,793	86
Advances to Provinces, Banks, etc., per schedule DD.....			24,935,487	05
Soldier and General Land Settlement, per schedule EE.....			4,776,571	47
Consolidated Fund, per Expenditure and Revenue Accounts..			74,601,939	63

196,815,484 43

NOTE.—Where there have been both Receipts and Disbursements affecting the above indicated accounts, the net amount only is shown.

STATEMENT

MARCH 31, 1930

PAYMENTS					
		\$	cts.	\$	cts.
Capital Accounts—					
Public Works, Canals, per schedule FF.	9,324,176	64			
Public Works, Railways, per schedule GG.....	6,663,437	83			
Public Works, Miscellaneous, per schedule HH.....	6,573,529	54			
				22,561,144	01
Railway Accounts (Loans non-active), per schedule II.....				2,704,333	02
Canadian National Steamships (Loans non-active), per schedule JJ.....				2,491,297	19
Dominion Notes.....				30,174,598	24
Post Office Savings Bank Deposits.....				2,289,733	71
Post Office Account—Money Orders, Postal Notes, etc.....				2,598,839	31
Province of Nova Scotia, Debt Account.....					3 89
Specie Reserve.....				5,136,140	39
Military Property and Stores, Toronto Barracks Site.....					1,250 65
Contingent and Special Funds, per schedule KK.....					102,255 65
Miscellaneous Current Accounts, per schedule LL.....				20,838,510	39
Miscellaneous Investments and Other Accounts (non-active), per schedule MM.....				2,822,069	95
Loan Accounts (Funded Debt), per schedule NN.....				76,954,379	29
Interest Due and Outstanding, per schedule OO.....					149,331 68
Balance to fiscal year 1930-31—					
Banks in Canada.....	16,737,809	83			
Banks in New York.....	10,904,521	45			
Bank of Montreal, London, England..	349,265	78			
				27,991,597	06
				196,815,484	43

SCHEDULES TO BALANCE SHEET

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE "A"						
<i>Specie Reserve—</i>						
Gold Coin and Bullion.....	65,447,667	39				
Silver Coin.....	397,970	85				
Nickel Coin.....	57,300	66				
Bronze Coin.....	24,535	18				
					65,927,474	08
SCHEDULE "B"						
<i>Advances to Provinces, Banks, etc.—</i>						
Province of British Columbia (Housing Loans).....	1,701,500	00				
Province of Manitoba (Housing Loans).....	1,550,000	00				
Province of New Brunswick (Housing Loans).....	1,136,000	00				
Province of Nova Scotia (Housing Loans).....	1,077,000	00				
Province of Prince Edward Island (Housing Loans).....	50,000	00				
Province of Quebec (Housing Loans).....	5,796,702	72				
Chicoutimi Harbour Commission.....	1,315,000	00			11,311,202	72
Halifax Harbour Commission.....	1,302,000	00				
Montreal Harbour Commission.....	53,686,000	00				
St. John Harbour Commission.....	2,313,000	00				
Three Rivers Harbour Commission.....	136,000	00				
Vancouver Harbour Commission.....	17,805,900	00				
Loans to Banks, "Finance Act," Chap. 70, R.S. 1927.....					76,557,900	00
Canadian Farm Loan Board.....	2,450,000	00			50,200,000	00
Canadian Farm Loan Board—Capital Stock.....	59,023	00				
					2,509,023	00
					140,578,125	72
SCHEDULE "C"						
<i>Advances to Foreign Governments—</i>						
Greek Government.....					6,865,000	00
Roumanian Government.....					23,969,720	00
					30,834,720	00
SCHEDULE "D"						
<i>Soldier and General Land Settlement Loans—</i>						
Soldier Land Settlement Loans.....	67,187,824	64				
General Land Settlement Loans.....	8,445,530	19				
Land Settlement, Purchased Lands.....	77,693	95			75,711,048	78
Less—Soldier Land Settlement Assurance Fund.....	699,665	88				
Land Settlement Suspense Account.....	329,971	64				
Amount transferred to Non-Active Accounts to provide for revaluations and losses.....	17,645,236	76			18,674,874	28
					57,036,174	50
SCHEDULE "E"						
<i>Miscellaneous Current Accounts—</i>						
<i>Advances to Royal Mint—</i>						
Gold Purchase Account.....	725,077	75				
Silver Purchase Account.....	1,668,064	42				
Nickel Purchase Account.....	47,666	92				
Copper Purchase Account.....	23,385	43			2,464,194	52
Bank of Montreal, Provincial Notes Suspense.....					27,622	83
Canada Grain Act Advance Account.....					6,323	98
Canadian Government Railways—						
Canadian Government Railways "Open Accounts".....	6,042,932	52				
Canadian Government Railways "Stores Accounts".....	9,757,420	40				
St. John and Quebec Railway "Stores Accounts".....	2,590	94				
	15,802,943	86				
Less—St. John and Quebec Railway "Open Accounts".....	54,022	26				
					15,748,921	60
Canadian National Railways (Temporary Loan).....					21,060,541	78
Empire Settlement Scheme—Advances under.....					129,679	84
Foreign Coin withdrawn from circulation.....					39,283	16
Halifax Shipyards, Limited.....					900,000	00
Imperial Government Account.....					6,802	94
King's Printer Advance—Printing.....					651,078	17
Carried forward.....					41,034,448	82

SCHEDULES TO BALANCE SHEET—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			41,034,448	82		
SCHEDULE "E"—Concluded						
<i>Miscellaneous Current Accounts—Concluded</i>						
King's Printer Advance—Stationery.....			258,274	05		
Montreal Turnpike Trust.....			133,156	56		
Saskatchewan Government Seed Grain Advances, 1908..			89,562	32		
Seed Grain and Relief, Department of the Interior.....	3,633,848	64				
Less—Amount transferred to Non-Active Accounts..	1,128,829	50				
			2,505,019	14		
St. John Bridge and Railway Extension Company.....			433,900	00	44,454,360	89
SCHEDULE "F"						
<i>Public Works (Canals)—</i>						
Burlington Bay Canal.....			308,328	32		
Chambly Canal, River Richelieu.....			580,092	59		
Improvements to Trent Canal.....			559,067	70		
Lachine Canal.....			11,017,873	15		
Lake St. Peter.....			1,164,235	08		
Murray Canal.....			1,248,946	71		
Ottawa Works.....			6,875,244	17		
Quebec Canals.....			34,841	69		
Rideau Canal.....			143,411	12		
Sault Ste. Marie Canals.....			4,935,809	42		
St. Anne's Lock—Railway Bridge at Isle Perrot.....			150,000	00		
St. Lawrence Canals.....			34,143,925	00		
St. Lawrence Ship Canal.....			133,896	80		
St. Ours Locks.....			14,868	23		
St. Peter's Cana.....			492,023	82		
Tay River Navigation.....			476,128	73		
Trent River Navigation.....			19,084,166	03		
Welland Canal.....			29,901,542	34		
Welland Ship Canal.....			112,672,252	00		
Miscellaneous.....			125	00	223,936,777	90
SCHEDULE "G"						
<i>Public Works (Railways)—</i>						
<i>Canadian Government Railways—</i>						
Canadian Government Railways.....			66,332,233	18		
Cape Breton Railway.....			104,520	54		
Caraquet and Gulf Shore Railway.....			209,950	00		
Elgin and Havelock Railway.....			33,530	00		
Intercolonial Railway.....			112,158,072	70		
International Railway of New Brunswick.....			2,681,377	35		
Lotbiniere and Megantic Railway.....			336,875	00		
National Transcontinental Railway.....			164,582,847	53		
New Brunswick and Prince Edward Island Railway.....			360,790	66		
Prince Edward Island Railway.....			11,744,541	78		
Quebec Bridge.....			21,706,664	49		
Quebec and Saguenay Railway.....			7,120,895	74		
Salisbury and Albert Railway.....			84,390	41		
St. Martin's Railway.....			72,624	91		
York and Carleton Railway.....			20,976	16	387,550,290	45
<i>Hudson Bay Railway—</i>						
Hudson Bay Railway.....	28,716,894	74				
Fort Churchill Terminals.....	4,707,160	15				
Port Nelson Terminals.....	6,240,200	86				
			39,664,255	75		
			78,610	58	39,742,866	33
<i>Residue of cost of Steamer Sheba.....</i>						
<i>Other Railways and Miscellaneous—</i>						
Digby and Annapolis Railway.....			660,683	09		
North Railway.....			250,000	00		
Governor General's Cars.....			71,538	82		
Miscellaneous.....			18,000	00		
Canadian Government Railways—Canada Central Rail- way—Peace River Bridge.....			175,000	00		
Canadian Government Railways—Residue of capital cost of Steamers <i>Drummond</i> and <i>McKee</i>			851,853	24	2,027,075	15
					429,320,231	93

SCHEDULES TO BALANCE SHEET—*Continued*

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE "H"						
<i>Public Works (Miscellaneous)—</i>						
Bare Point Breakwater.....			217,995	90		
Canadian Building, London, England.....			1,539,073	11		
Canadian Legation Building and Site, Washington, D.C.....			477,754	35		
Cape Tormentine Harbour.....			236,860	63		
Esquimalt Graving Dock.....			7,789,761	10		
Georgian Bay to Montreal Waterway Survey.....			918,796	85		
Government Buildings, Ottawa.....			30,329,876	89		
Government Shipbuilding Program.....			55,171,058	64		
Halifax Elevator Site.....			86,511	89		
Halifax Harbour Improvements.....			12,830,122	16		
Improvements to the St. Lawrence.....			39,929,678	81		
Kingston Graving Dock.....			556,589	35		
Land and Cable Telegraph Lines.....			348,320	77		
Levis Graving Dock.....			971,592	58		
Lower Lakes Terminals.....			1,565,644	15		
Montreal Harbour Improvements.....			1,060,342	83		
New Dominion Building, Toronto.....			1,166,646	95		
Ottawa, Expropriation of property between Sparks and Wellington streets, east of Elgin.....			855,551	54		
Port Arthur and Fort William and River Kaministiquia.....			15,619,380	68		
Port Colborne Harbour.....			904,459	39		
Quebec Harbour Improvements.....			9,491,473	30		
Rainy River, Lock and Dam.....			133	80		
Sorel Harbour Improvements.....			1,118,321	16		
St. Andrews Rapids, including Red River Improvements.....			1,569,776	99		
St. John Harbour Improvements.....			18,112,562	14		
Tiffin Harbour Improvements.....			481,621	50		
Toronto Harbour Improvements.....			9,097,022	85		
Upper St. Lawrence River—Channel Improvements.....			28,172	64		
Vancouver Harbour Improvements.....			3,600,078	73		
Victoria Harbour, Ontario, Improvements.....			761,801	79		
Victoria Harbour, British Columbia, Improvements.....			5,131,024	94		
Yukon Territory Works.....			1,921,392	10		
					223,889,430	60
SCHEDULE "I"						
<i>Military Property and Stores—</i>						
Military Property and Stores.....					12,118,150	87
LESS—Fort Osborne Barracks, Winnipeg.....	62,947	27				
St. Helen's Island Barracks Site.....	19,783	10				
					82,730	37
					12,035,420	50
SCHEDULE "J"						
<i>Territorial Accounts—</i>						
Northwest Territories, Organization.....			1,460,000	00		
Northwest Territories, Purchase.....			1,460,000	00		
Expenses connected with the Northwest Rebellion.....					826,077	87
Dominion Lands to March 31, 1911.....	10,425,395	92				
LESS—Received from Dominion Lands.....	4,275,526	11				
					6,149,869	81
					9,895,947	68
SCHEDULE "K"						
<i>Railway Accounts (old)—</i>						
Canadian Pacific Railway.....			62,791,435	25		
Grand Trunk Railway Debenture Account.....			15,142,633	34		
Grand Trunk Railway Interest Account.....			10,457,458	01		
Grand Trunk Railway Special Account.....			7,302	18		
					88,398,828	78
SCHEDULE "L"						
<i>Railway Accounts (Loans non-active)—</i>						
<i>Canadian Northern Railway—</i>						
Ontario Interest Account (Sec. 10, Chap. 6, Acts of 1911).....	2,396,099	68				
Interest Account (Chap. 20, Acts of 1914).....	5,294,000	02				
Loan Account, 1914 (Chap. 4, Acts of 1915).....	10,000,000	00				
Carried forward.....			17,690,099	70		

SCHEDULES TO BALANCE SHEET—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	17,690,099	70				
SCHEDULE "L"— <i>Concluded</i>						
<i>Railway Accounts (Loans non-active)—Concluded</i>						
Canadian Northern Railway— <i>Concluded</i>						
Loan Account, 1916 (Chap. 29, Acts of 1916).....	15,000,000	00				
Purchase of Capital Stock (Chap. 24, Acts of 1917, Sec. 4 Subsec. 3).....	10,000,000	00				
Loan Account, Legislation 1917 (7-8 George V, Chap. 24)	25,000,000	00				
Loan on account of Interest and Equipment (Act No. 1, Legislation of 1918).....	25,000,000	00				
Loan under authority of Vote 108, Appropriation Act No. 4, 1919.....	35,000,000	00				
Loan under authority of Vote 127, Appropriation Act No. 4, 1920.....	48,611,077	00				
Loan under authority of Vote 126, Appropriation Act No. 2, 1921.....	44,419,806	42				
Loan under authority of Vote 136, Appropriation Act No. 1, 1922.....	42,800,000	00				
Loan under the War Measures Act.....	1,887,821	16	265,408,804	28		
<i>Grand Trunk Railway—</i>						
Loan under authority of Vote 478, Appropriation Act No. 4, 1920.....	25,000,000	00				
Loan under authority of Vote 126, Appropriation Act No. 2, 1921.....	55,293,435	18				
Loan under authority of Vote 137, Appropriation Act No. 1, 1922.....	23,288,747	15				
Grand Trunk Pacific Loan of 1913 (Chap. 23 of Acts of 1913), (guaranteed by the Grand Trunk Railway Company).....	15,000,000	00	118,582,182	33		
<i>Grand Trunk Pacific Railway—</i>						
Loan Account of 1914 (Chap. 4 of Acts of 1915).....	6,000,000	00				
3 per cent Mortgage Bonds (Chap. 24, 3-4 Geo. V, 1913).....	33,093,333	23				
Interest Account, Appropriation Act No. 2, 1916.....	7,081,783	45				
Loan Account, Appropriation Act No. 4, 1917.....	5,038,053	72				
Loan Account, Appropriation Act, 1918.....	7,471,399	93				
Receiver Account, O.C. March 26th, 1919, P.C. 635.....	45,764,162	35				
Guaranteed Interest Account (guaranteed by the Dominion of Canada).....	8,704,662	65				
Branch Lines Coupons (guaranteed by the Provinces of Alberta and Saskatchewan).....	2,898,536	98	116,051,932	31		
<i>Canadian National Railways—</i>						
Loan under authority of Appropriation Act, 1923.....	24,550,000	00				
Loan under authority of Appropriation Act, 1924.....	10,000,000	00				
Loan under authority of Appropriation Act, 1925.....	10,000,000	00				
Loan under authority of Appropriation Act, 1926.....	10,000,000	00				
Loan under authority of Appropriation Act, 1929.....	2,932,652	91	57,482,652	91		
<i>Loans to Railways—</i>						
Purchase of Railway Equipment, Chap. 38, Statutes of 1918.....			56,926,000	82	614,451,572	65
SCHEDULE "M"						
<i>Canadian National Steamships (Loans non-active)—</i>						
Canadian Government Merchant Marine, Limited.....			12,861,417	06		
Canadian National (West Indies) Steamships, Limited.....			862,389	98	13,723,807	04
SCHEDULE "N"						
<i>Miscellaneous Investments and Other Accounts (non-active)—</i>						
Bonds, Interest and Notes Adjustment Account.....			16,871	99		
Earl of Selkirk Mortgage on property in Township of Moulton.....			13,900	00		
Grand Trunk Railway Preference Stock.....			121,739	65		
Carried forward.....			152,511	64		

SCHEDULES TO BALANCE SHEET—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			152,511	64		
SCHEDULE "N"—Concluded						
Miscellaneous Investments and Other Accounts (non-active)—						
Concluded						
High Commissioner's Suspense.....			2,043	17		
Italian Government.....				702	52	
Quebec Harbour Commission.....			20,938	995	68	
Quebec Turnpike Trust Bond.....				20,000	00	
Russian Government Account.....				55,571	82	
Seed Grain and Relief—Department of the Interior.....				1,128,829	50	
Soldier and General Land Settlement Loans.....				17,645,236	76	
Three Rivers Harbour Debentures.....	81,760	97				
Less—Sinking Funds.....		2,308	41			
				79,452	56	
University Hospital—Edmonton, Alberta.....				100,000	00	
Unpaid Coupons—New York Loans "Suspense".....				45,713	50	
Victoria Shipowners, Limited.....				621,987	05	
						40,791,044 20
SCHEDULE "O"						
Insurance and Superannuation Funds—						
Civil Service Superannuation and Retirement Act, 1893,						
Chap. 17, R.S. 1906.....			2,038,256	00		
Civil Service Superannuation Act, 1924, Chap. 24, R.S.						
1927.....			28,332,923	40		
Government Annuities.....			20,612,250	28		
Insurance Fund, Civil Service.....			5,719,709	35		
Retirement Fund.....			5,751,035	25		
Returned Soldiers' Insurance.....			7,968,686	26		
						70,422,860 54
SCHEDULE "P"						
Trust Funds—						
Alberta School Lands.....			257,822	68		
British Columbia Pilots' Pension Fund.....				7,152	39	
Burrard Dry Dock Pontoons.....				12,746	18	
Common School Funds.....			2,663,535	32		
Canadian National Railways—						
Guaranteed Bond Issues (outstanding interest).....				83,600	00	
Contractors' Securities.....			2,060,933	32		
Decayed Pilots' Fund.....	115,211	52				
Less—Amount invested in Bonds (Appendix No. 21)		107,000	00			
				8,211	52	
Empress of Ireland Relief Fund.....					73	00
Halifax Pilots' Pension Fund.....	88,903	42				
Less—Amount invested in Bonds (Appendix No. 22)		81,393	33			
				7,510	09	
Immigration Guarantee and Special Funds.....				402,802	63	
Indian Funds.....			13,856,521	04		
Manitoba School Lands.....				12,584	82	
Militia and Defence Regimental Funds.....				5,312	42	
Military Estates, No. 1.....				121,437	91	
Military Estates, No. 2.....				14,757	68	
Royal Military College—Cadet Funds.....				14,476	08	
Saskatchewan School Lands.....				240,632	89	
Soldiers' Civil Re-establishment—War Service Gratuity				160,154	01	
Soldiers' Civil Re-establishment—Pensions, etc.....				534,320	76	
St. John Pilots' Pension Fund.....	44,855	28				
Less—Amount invested in Bonds (Appendix No. 24)		41,000	00			
				3,855	28	
Strathcona Trust Fund.....				500,000	00	
Sydney Pilots' Pension Fund.....	49,637	05				
Less—Amount invested in Bonds (Appendix No. 23)		41,800	00			
				7,837	05	
						20,976,277 07

SCHEDULES TO BALANCE SHEET—*Continued*

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE "Q"						
<i>Contingent and Special Funds—</i>						
Board of Pension Commissioners, Mennonite Funds.....			4,491	29		
Briton Medical and General Life Association Funds.....				281	06	
Cash Suspense—Unallocated funds received.....			108,943	54		
Columbia River Special.....			2,818	04		
Defunct Banks—Balances to meet notes and unclaimed deposits.....			142,395	80		
Department of the Interior, Suspense.....				717	00	
Home Bank Creditors Relief, Suspense.....			12,280	70		
Income Tax (Appeals) Suspense.....			7,600	00		
Indian Affairs, Special.....			10,168	14		
Internment Operations.....			22,845	97		
Land Assurance Fund.....			12,131	59		
Ontario Fire Insurance Company (in liquidation).....			12,458	65		
Outstanding Cheques.....			86,199	96		
Prisoners of War.....			6,005	73		
Railways and Canals, Suspense.....			5,228	36		
Royal Canadian Mounted Police, Special.....				582	21	
Unclaimed Cheques, Canadian Government Railways.....			1,157	48		
Unclaimed dividends <i>re</i> liquidation under the Bankruptcy Act.....			29,824	79		
Victory Loans, at credit of subscribers in arrears.....			210,600	90		
Victory Loan Canvassers Suspense.....			1,629	58		
Walter J. King—Suspense Account.....				90	00	
York County Loan and Savings Co. (in liquidation).....			35,497	22		
					713,948	01
SCHEDULE "R"						
<i>Province Accounts—</i>						
Province of British Columbia Debt Account.....	583,021	40				
Province of Manitoba Debt Account.....	3,578,941	20				
Province of Nova Scotia Debt Account.....	1,055,429	75				
Province of New Brunswick Debt Account.....	529,299	39				
Province of Ontario Debt Account.....	2,848,289	52				
Province of Prince Edward Island Debt Account.....	775,791	83				
Province of Quebec Debt Account.....	2,549,213	61				
			11,919,986	70		
Less—Province of Nova Scotia Suspense Account.....	40,157	97				
Province of Prince Edward Island Land Account.....	782,402	33				
Province of Quebec Debt Account.....	1,473,609	63				
			2,296,169	93		
					9,623,816	77

SCHEDULES TO BALANCE SHEET—Continued

	Matured and Outstanding	Unmatured	Total
	\$ cts.	\$ cts.	\$ cts.
SCHEDULE "S"			
Funded Debt—			
Payable in Canada—			
Provincial Notes, Nova Scotia.....	39,180 16		39,180 16
Unpaid Warrants, Prince Edward Island.....	549 59		549 59
Compensation to Seigneurs.....		12,140 15	12,140 15
Compensation to Townships.....		153 00	153 00
Province of New Brunswick, 6 per cent Loan Debentures.....	600 00		600 00
Province of Canada, 5 per cent Loan Debentures.....	400 00		400 00
Dominion Stock, issue A, 6 per cent.....		4,000 00	4,000 00
" " B, 3½ per cent.....		17,700 00	17,700 00
" " C, 3½ per cent.....		48,666 67	48,666 67
Debenture Stock, 5 per cent, 1919.....	2,000 00		2,000 00
Debenture Stock, 5 per cent, School Lands—			
Province of Alberta.....		9,243,000 00	9,243,000 00
Province of Manitoba.....		5,893,000 00	5,893,000 00
Province of Saskatchewan.....		17,484,000 00	17,484,000 00
Debenture Stock, 5½ per cent, 1921.....	200 00		200 00
War Savings Certificates.....	15,150 00		15,150 00
Dominion of Canada Savings Certificates.....	12,925 00		12,925 00
War Savings and Thrift Stamps.....	91,515 75		91,515 75
Dominion of Canada War Loan, 1915-25, 5 per cent.....	31,300 00		31,300 00
" " " 1916-31, 5 per cent.....		52,931,600 00	52,931,600 00
" " " 1917-37, 5 per cent.....		90,166,900 00	90,166,900 00
Victory Loan 1917, 5½ per cent, due 1922.....	95,650 00		
" " " 1927.....	106,300 00		
" " " 1937.....		236,299,800 00	236,501,750 00
Victory Loan 1918, 5½ per cent, due 1923.....	99,750 00		
" " " 1933.....		446,659,950 00	446,759,700 00
Victory Loan 1919, 5½ per cent, due 1924.....	53,600 00		
" " " 1934.....		511,910,650 00	511,964,250 00
Renewal Loan 1922, 5½ per cent, due 1927.....	40,100 00		
" " " 1932.....		73,325,150 00	73,365,250 00
Refunding Loan 1923, 5 per cent, due 1928.....	50,400 00		
" " " 1943.....		147,001,100 00	147,051,500 00
Refunding Loan 1924, 4½ per cent, due 1944.....		50,000,000 00	50,000,000 00
Refunding Loan 1925, 4½ per cent, due 1940.....		75,000,000 00	75,000,000 00
Refunding Loan 1926, 4½ per cent, due 1930.....	11,000 00		
" " " 1946.....		45,000,000 00	45,011,000 00
Three Year Treasury Notes, 4 per cent, due Dec. 1, 1930.....		45,000,000 00	45,000,000 00
	650,620 50	1,805,997,809 82	1,806,648,430 32
Less—Sinking Funds—			
War Loan 1916-31..... \$1,211,300 00			
" " 1917-37..... 379,800 00			
Sinking Funds Cash..... 80,300 88			
		1,671,400 88	1,671,400 88
	650,620 50	1,804,326,408 94	1,804,977,029 44
Payable in London—			
3½ per cent Loan 1884 (1909-34).....		23,467,206 27	23,467,206 27
3½ per cent Canadian Pacific Railway Land Grant Loan, due July 1, 1938.....		15,056,006 66	15,056,006 66
3½ per cent Loan 1930-50.....		137,058,841 00	137,058,841 00
3 per cent Loan 1888, due July 1, 1938.....		8,071,230 16	8,071,230 16
3 per cent Loan 1892, due July 1, 1938.....		18,250,000 00	18,250,000 00
3 per cent Loan 1894, due July 1, 1938.....		10,950,000 00	10,950,000 00
2½ per cent Loan 1897, due Oct. 1, 1947.....		4,888,185 64	4,888,185 64
4 per cent Loan 1940-60.....		93,926,666 66	93,926,666 66
Unpaid Debentures.....	17,236 04		17,236 04
	17,236 04	311,668,136 39	311,685,372 43
Less—Sinking Funds held on account of—			
3½ per cent Loan 1884..... \$15,396,154 12			
3½ per cent Loan 1930-50..... 25,772,059 93			
4 per cent Loan 1940-60..... 13,331,458 77			
		54,499,672 82	54,499,672 82
	17,236 04	257,168,463 57	257,185,699 61

SCHEDULES TO BALANCE SHEET—*Continued*

	Matured and Outstanding	Unmatured	Total
	\$ cts.	\$ cts.	\$ cts.
SCHEDULE "S"—<i>Concluded</i>			
Funded Debt—<i>Concluded</i>			
<i>Payable in New York—</i>			
5 per cent Bond Loan 1915-35.....		874,000 00	874,000 00
5 per cent Public Service Loan 1916, due 1926.....	5,000 00		
5 per cent Public Service Loan 1916, due 1931.....		25,000,000 00	25,005,000 00
5½ per cent Bond Loan 1919-29.....	85,900 00		85,900 00
5 per cent Bond Loan 1922-52.....		100,000,000 00	100,000,000 00
4½ per cent Bond Loan 1926-36.....		40,000,000 00	40,000,000 00
5 per cent two-year Notes due August 1, 1919.....	1,000 00		1,000 00
	91,900 00	165,874,000 00	165,965,900 00
Grand Total.....	759,756 54	2,227,368,872 51	2,228,128,629 05
SCHEDULE "T"			
<i>Interest Due and Outstanding—</i>			
Unpaid Interest (Domestic Loans).....		2,126,366 99	
" (New York Loans).....		670,388 00	
" (London Loans).....		44,902 76	
Unpaid Dividends, Province of British Columbia.....		33 67	
" Province of Canada.....		4,663 18	
" Province of New Brunswick.....		1,279 00	
" Province of Nova Scotia.....		795 80	
" Province of Prince Edward Island.....		867 25	
" Dominion Stock.....		3,717 33	
Unpaid Warrants.....		81 76	
			2,853,095 74

SCHEDULES TO BALANCE SHEET—*Concluded*

	Amount of Guarantee Authorized	Amount outstanding at March 31, 1930	
		Held by the Public	Held by the Minister of Finance
	\$ cts.	\$ cts.	\$ cts.
SCHEDULE "V"			
<i>Guaranteed Securities—</i>			
<i>Railway Securities Guaranteed as to Principal and Interest—</i>			
1. Canadian Northern Ry. Co., 3 per cent deb. stock due 1953, £1,923,287-0-0.....	9,359,996 72	9,359,996 72	
2. Canadian Northern Ry. Co., 3½ per cent deb. stock due 1958, £1,622,586-19-9.....	7,896,590 00	7,896,566 82	
3. Canadian Northern Ontario Ry. Co., 3½ per cent deb. stock due 1961, £7,350,000-0-0.....	35,770,000 00	34,229,996 87	1,540,003 13
4. Canadian Northern Alberta Ry. Co., 3½ per cent deb. stock due 1960, £647,260-5-6.....	3,150,000 00	3,149,998 66	
5. Grand Trunk Pacific Ry. Co., 3 per cent bonds due 1962, £14,000,000-0-0.....	68,040,000 00	34,992,000 00	33,048,000 00
6. Canadian Northern Alberta Ry. Co., 3½ per cent deb. stock due 1962, £733,561-12-10.....	3,569,999 98		3,569,996 86
7. Canadian Northern Ry. Co., 4 per cent deb. stock and bonds due 1934.....	45,000,000 00	17,060,333 33	12,500,000 00
8. Grand Trunk Pacific Ry. Co., 4 per cent bonds due 1962, £3,280,000-0-0.....	15,940,800 00	8,440,848 00	7,499,952 00
9. Canadian Northern Ry. Co., 7 per cent bonds due 1940	25,000,000 00	24,793,000 00	
10. Grand Trunk Ry. Co., 7 per cent bonds due 1940....	25,000,000 00	24,743,000 00	
11. Canadian Northern Ry. Co., 6½ per cent bonds due 1946.....	25,000,000 00	25,000,000 00	
12. Grand Trunk Ry. Co., 6 per cent bonds due 1936....	25,000,000 00	25,000,000 00	
13. Canadian National Ry. Co., 5 per cent serial equipment bonds, 1923-38.....	22,500,000 00	12,750,000 00	
14. Canadian National Ry. Co., 5 per cent bonds due 1954	50,000,000 00	50,000,000 00	
15. Canadian National Ry. Co., 4½ per cent bonds due 1954.....	26,000,000 00	26,000,000 00	
16. Canadian Northern Ry. Co., 4½ per cent bonds due 1935.....	17,000,000 00	17,000,000 00	
17. Canadian National Ry. Co., 1927, 2 per cent guar. Deb. Stock, £7,176,801-0-0.....	34,927,098 20	31,675,551 67	
18. Canadian National Ry. Co., 4½ per cent Gold Bonds due 1957.....	65,000,000 00	65,000,000 00	
19. Canadian National Ry. Co., 4½ per cent Gold Bonds due 1968.....	35,000,000 00	35,000,000 00	
20. Canadian National Ry. Co., 5 per cent Gold Bonds due July 1, 1969.....	60,000,000 00	60,000,000 00	
21. Canadian National Ry. Co., 5 per cent Gold Bonds due Oct. 1, 1969.....	60,000,000 00	60,000,000 00	
22. Canadian National Ry. Co., 5 per cent Gold Bonds due 1970.....	18,000,000 00	18,000,000 00	
	677,154,484 90	590,091,292 07	58,157,951 99
<i>Railway Securities guaranteed as to Interest only—</i>			
23. Grand Trunk Ry. Acquisition Guarantees—			
Grand Trunk 4 per cent perp. guar. stock, £12,500,000.....	60,833,333 33	60,833,333 33	
Grand Trunk 5 per cent perp. deb. stock, £4,270,375	20,782,491 67	20,782,491 67	
Great Western 5 per cent perp. deb. stock, £2,723,080.....	13,252,322 67	13,252,322 67	
Grand Trunk 4 per cent perp. deb. stock, £24,624,455	119,839,014 33	119,839,014 33	
Northern Ry. of Canada, 4 per cent perp. deb. stock, £308,215.....	1,499,979 67	1,499,979 67	
	216,207,141 67	216,207,141 67	
<i>Other Securities Guaranteed as to Principal and Interest—</i>			
24. Harbour Commissioners of Montreal, Montreal South Shore Bridge 5 per cent Bonds due 1969....	19,500,000 00	18,500,000 00	
25. Canadian National (West Indies) Steamships Ltd., 5 per cent Bonds due 1955.....	10,000,000 00	9,400,000 00	
26. St. John Harbour Commission—			
(a) Bonded indebtedness of the City of Saint John, assumed by the Commission.....	1,467,164 96	1,467,164 96	
(b) Debentures of the Commission issued to the City of Saint John—5 per cent, due August 1, 1952....	667,953 04	667,953 04	
27. New Westminster Harbour Commissioners 4½ per cent debentures due 1948.....	700,000 00	700,000 00	
	32,335,118 00	30,735,118 00	

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 1						
<i>Agriculture—</i>						
Civil Government—Salaries.....	806,285	91				
Contingencies.....	149,081	23				
			955,367	14		
Agricultural Produce Marketing Agent in Great Britain.	11,893	55				
Assistance in providing pre-cooling warehouse facilities for fruit in British Columbia.....	25,000	00				
Branch of Entomology.....	24,989	39				
Cold Storage Warehouses.....	467,754	95				
Contributions to Empire Bureau.....	21,535	00				
Compensation for animals tested under the Animal Contagious Diseases Act, and dying before it was possible to slaughter them, under the provisions of the Act..	4,390	46				
Dairying, including grant of \$5,000 to the National Dairy Council.....	271,461	05				
Destructive Insect and Pest Act.....	571,567	94				
Experimental Farms, including necessary new buildings	2,043,327	33				
Experiments in the dehydration of fruits and vegetables	25,440	30				
Exchequer Court Awards—						
Compensation to J. R. Booth Ltd., for the Booth Farm.....	\$ 268,678	12				
Interest at 4 per cent on above from May 9 to August 7, 1929.....	2,649	98				
	271,328	10				
Farm Economics, including Agricultural Co-operative Marketing.....	1,456	46				
Fruit Branch, including grant of \$8,000 to the Canadian Horticultural Council.....	341,640	38				
Grant to the Department of Agriculture, Province of Nova Scotia.....	8,389	08				
Health of Animals, Administration of the Animal Contagious Diseases Act and Meat and Canned Foods Act, and necessary buildings.....	2,903,618	97				
International Institute of Agriculture.....	13,467	84				
Live Stock, including grants to Exhibitions, Feeder Shows, etc.....	1,508,422	83				
Publications Branch.....	24,015	49				
Seed, Feed and Fertilizer Control, including grants to Seed Fairs, etc., and necessary buildings, also grant of \$13,000 to Canadian Seed Growers' Association..	622,047	10				
World's Poultry Congress.....	25,000	00				
World's Grain Congress.....	100,000	00				
			9,286,746	22		
<i>Miscellaneous—</i>			3,210	00		
Gratuities.....					10,245,323	36
SCHEDULE No. 2						
<i>Finance—</i>						
Civil Government—Salaries.....	417,598	44				
Contingencies.....	39,180	96				
Inspector General of Banks.....	18,615	74				
			475,395	14		
Lieutenant Governors' Salaries (Appendix No. 6).....			81,749	98		
Charges of Management (Appendix No. 8).....			1,015,766	45		
Premium, Discount and Exchange (Appendix No. 9).....			72,975	53		
Superannuation (Appendix No. 10)—						
No. 1 Civil Service Superannuation and Retirement Act 1870, Chap. 17, R.S. 1906.....	531,252	58				
No. 3 Printing Bureau.....	15,929	74				
No. 4 Public Service Retirement Act of 1920.....	631,293	08				
No. 6 Civil Servants Widows' Annuities Act, 1927..	142,708	07				
			1,321,183	47		
<i>Miscellaneous—</i>						
Ottawa Branch of the Royal Mint.....	200,000	00				
Board of Audit.....	34,919	69				
Unforeseen Expenses.....	13,329	14				
			248,248	83		
<i>Interest on Public Debt (Appendix No. 7)—</i>						
Funded Debt payable in London.....			11,142,780	02		
Funded Debt payable in Canada.....			96,204,180	84		
Funded Debt payable in New York.....			9,594,589	50		
Post Office Savings Bank.....			784,581	89		
Insurance and Superannuation Funds.....			2,724,625	62		
Trust Funds.....			932,658	79		
Bank Circulation Redemption Fund.....			182,796	55		
					121,566,213	21
Carried forward.....					124,781,532	61

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					124,781,532	61
SCHEDULE No. 2—Concluded						
<i>Subsidies to Provinces (Appendix No. 41)—</i>						
Alberta.....	1,576,685	00				
British Columbia.....	733,816	66				
Manitoba.....	1,508,591	36				
New Brunswick.....	666,765	76				
Nova Scotia.....	661,841	23				
Ontario.....	2,642,611	68				
Prince Edward Island.....	381,931	88				
Quebec.....	2,256,419	88				
Saskatchewan.....	2,063,295	00				
					12,496,958	50
					137,278,491	11
SCHEDULE No. 3						
<i>Fisheries—</i>						
Civil Government—Salaries.....	117,635	21				
Contingencies.....	32,649	74				
			150,284	95		
Building fishways and clearing rivers.....	7,640	93				
Conservation and development of deep sea fisheries and the demand for fish.....	109,504	49				
Compensation to Aimé Boudreau for loss of boat <i>Norge</i> destroyed by fire while under charter.....	1,000	00				
Expenses of the British Columbia Fisheries Reference to the Privy Council.....	14,999	99				
Fish culture.....	361,165	09				
Fisheries Intelligence Bureau.....	2,573	19				
Fishing bounty.....	159,749	35				
Investigation into the life history of the Pacific halibut.....	38,114	88				
Legal and incidental expenses.....	3,350	77				
Marine Biological Board of Canada.....	358,885	00				
Oyster culture.....	29,387	64				
Payment of a bounty for the destruction of hair seals in tidal waters.....	27,924	00				
Salaries and disbursements of Fishery Officers and Guardians, Fisheries Patrol and Fisheries Protection Services.....	1,159,998	23				
			2,274,293	56		
<i>Miscellaneous—</i>						
Gratuities.....			1,160	00		
					2,425,738	51
SCHEDULE No. 4						
<i>Immigration and Colonization—</i>						
Civil Government—Salaries.....	296,951	95				
Contingencies.....	37,468	61				
			334,420	56		
Salaries.....	920,506	83				
Contingencies.....	1,128,962	40				
Chinese Immigration—Salaries and Contingencies.....	56,635	15				
Empire Settlement Scheme.....	641,477	23				
Relief of Distressed Canadians abroad.....	960	76				
St. John Immigration Buildings.....	8,788	29				
			2,757,330	66		
<i>Miscellaneous—</i>						
Gratuities.....			2,130	00		
					3,093,881	22
SCHEDULE No. 5						
<i>Indian Affairs—</i>						
Civil Government—Salaries.....	175,926	64				
Contingencies.....	21,373	47				
			197,300	11		
British Columbia.....	576,994	18				
Manitoba, Saskatchewan, Alberta and Northwest Territories.....	1,061,079	15				
Carried forward.....	1,638,073	33	197,300	11		

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	1,638,073	33	197,300	11		
SCHEDULE No. 5—Concluded						
<i>Indian Affairs—Concluded</i>						
New Brunswick.....	67,791	00				
Nova Scotia.....	82,951	13				
Ontario and Quebec.....	432,960	72				
Prince Edward Island.....	7,250	70				
Yukon.....	18,908	30				
General.....	336,264	05				
Annuities.....	219,416	00				
Indian Education.....	2,330,438	21				
Gratuity to W. S. Hockley.....	500	00				
			5,134,553	44		
<i>Miscellaneous—</i>						
Gratuities.....			650	00		
					5,332,503	55
SCHEDULE No. 6						
<i>Interior—</i>						
Civil Government—Salaries.....	1,448,062	53				
Contingencies.....	89,875	92				
			1,537,938	45		
<i>Dominion Lands and Parks—</i>						
Salaries of the Outside Service.....	672,927	90				
Contingencies.....	239,429	48				
Canadian National Parks.....	1,407,502	58				
Compassionate allowance to Mrs. E. S. Forbes.....	1,050	00				
Costs of litigation and legal expenses.....	27,203	10				
Construction of the Golden-Revelstoke Highway.....	129,828	25				
Exchequer Court Awards,—re:						
Kootenay Park.....	1,919	80				
Rentals re Mining Leases, Isenberg Estate.....	113,280	00				
Fees and contingent expenses of the Board of Examiners for Dominion Land Surveys.....	1,998	62				
Grant to Alpine Club of Canada.....	1,000	00				
Grant to Canadian Forestry Association.....	4,000	00				
International and Boundary Waterways—Professional assistance to advise Departmental Officers.....	13,449	64				
Lake of the Woods Control Board.....	8,397	50				
Manitoba Natural Resources Commission—Expenses....	19,322	81				
Migratory Birds Convention Act.....	58,784	32				
Ordinance Lands—Salaries and expenses.....	27,702	04				
Protection of Timber.....	1,803,084	67				
Publications, including maps.....	270,252	44				
Roseau River Surveys.....	8,367	83				
Salaries and Expenses in connection with seed grain and relief collections.....	48,465	50				
Supervisory Mining Engineer's Office—Expenses.....	125,193	81				
To assist in publishing the transactions of the Association of Dominion Land Surveyors.....	125	00				
Water and Power investigations.....	496,549	26				
			5,479,834	55		
<i>Scientific Institutions—</i>						
Dominion Observatory at Ottawa.....	62,097	96				
Dominion Astrophysical Observatory at Victoria, B.C.....	23,078	10				
Geodetic Survey of Canada.....	266,872	19				
International Boundary Surveys.....	34,507	71				
Topographical and General Surveys.....	429,718	93				
To compensate the Temiskaming and Northern Ontario Railway in connection with their claim for injury to John Hedin.....	240	00				
			816,514	89		
<i>Government of the Northwest Territories—</i>						
Administration of the Territories.....	188,190	33				
Arctic Exploration and Administration of Eskimo Affairs.....	146,666	60				
Purchase, herding and maintenance of reindeer.....	48,591	14				
Purchase of Beaver Pelts from certain Indians as a relief measure.....	51,340	99				
			434,789	06		
Carried forward.....			8,269,076	95		

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			8,269,076	95		
SCHEDULE No. 6—Concluded						
Interior—Concluded						
Government of the Yukon Territory—						
Administration of the Territory.....	65,574	30				
Extra living allowance to G. A. Jeckell, Comptroller, while acting as Gold Commissioner.....	675	00				
Grant to Local Council.....	45,000	00				
Grant for maintenance and construction of roads.....	73,000	00				
Grant for payment of bounty on wolves and coyotes.....	2,125	05				
			186,374	35		
Miscellaneous—						
Payment to Mrs. E. B. Hutcheson as Matron.....	1,200	00				
Settlement of Claim of William H. Hubbard.....	25,000	00				
Grant to John Thomas (Jack) Miner.....	5,000	00				
Gratuities.....	3,254	16				
			34,454	16		
					8,489,905	46
SCHEDULE No. 7						
Justice—						
Civil Government—Salaries.....			270,778	13		
Contingencies.....			39,927	96		
					310,706	09
Supreme Court—						
Salaries.....	83,580	65				
Contingencies.....	22,923	01				
			106,503	66		
Exchequer Court—						
Salaries.....	24,400	00				
Contingencies.....	9,573	44				
Travelling allowances—Admiralty Judges.....	33	10				
			34,006	54		
Alberta—						
Supreme Court.....	101,000	00				
District Courts.....	55,000	00				
Travelling Allowances.....	29,387	72				
			185,387	72		
British Columbia—						
Court of Appeal.....	46,000	00				
Supreme Court.....	54,027	73				
County Courts.....	70,000	00				
Travelling Allowances.....	19,960	85				
			189,988	58		
Manitoba—						
Court of Appeal.....	46,000	00				
Court of King's Bench.....	55,000	00				
County Courts.....	50,000	00				
Travelling Allowances.....	6,422	05				
			157,422	05		
New Brunswick—						
Court of Appeal.....	28,750	00				
Court of King's Bench.....	37,000	00				
County Courts.....	30,000	00				
Court of Divorce.....	500	00				
Travelling Allowances.....	9,640	90				
			105,890	90		
Nova Scotia—						
Supreme Court.....	62,403	23				
County Courts.....	35,000	00				
Court of Divorce.....	500	00				
Travelling Allowances.....	6,739	15				
			104,642	38		
Ontario—						
Court of Appeal.....	53,000	00				
High Court Division.....	112,225	00				
County Courts.....	315,445	72				
Travelling Allowances.....	43,621	41				
			524,292	13		
Carried forward.....			1,408,133	96	310,706	09

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			1,408,133	96	310,706	09
SCHEDULE No. 7—Concluded						
Justice—Concluded						
Prince Edward Island—						
Supreme Court.....	28,000	00				
County Courts.....	15,000	00				
Travelling Allowances.....	532	50	43,532	50		
Quebec—						
Court of King's Bench.....	98,264	52				
Superior Court.....	356,510	79				
Travelling Allowances.....	33,813	42	488,588	73		
Saskatchewan—						
Court of Appeal.....	37,000	00				
Court of King's Bench.....	73,000	00				
District Courts.....	89,166	60				
Travelling Allowances.....	20,651	99	219,818	59		
Yukon Territory—						
Salaries and Expenses.....			19,742	31		
Miscellaneous.....			15,962	15		
Living allowance for Judge of Atlin District, B.C.....			1,200	00		
Travelling and living expenses of Judges of Manitoulin and Algoma Districts while acting in Sudbury District.....			1,593	50		
Travelling and living expenses of Judge McKay while acting Judge of Kenora District.....			337	50	2,198,909	24
Penitentiaries—						
Alberta.....			2,552	00		
British Columbia.....			204,681	13		
Dorchester.....			283,325	77		
Kingston.....			460,912	65		
Manitoba.....			254,243	42		
Saskatchewan.....			276,163	09		
St. Vincent de Paul.....			411,497	28		
General.....			78,861	84		
Purchase of preferred class penitentiary site, and beginning erection of buildings.....			145,529	08		
Purchase of Lussier Estate and other properties at St. Vincent de Paul.....			442,348	33		
Grant towards expenses of American Prison Congress, Toronto, 1929.....			1,000	00	2,561,114	59
Miscellaneous—						
Bankruptcy Act—Administration.....			760	04		
Canadian Law Library, London, England.....			357	80		
Expenses of litigated matters conducted within the Department of Justice.....			69,573	86		
Judicial Committee of the Privy Council.....			3,000	00		
Gratuities.....			7,999	99	81,691	69
SCHEDULE No. 8						
Labour—						
Civil Government—Salaries.....	241,190	81				
Contingencies.....	28,981	45	270,172	26		
Act respecting Annuities—Administration.....	75,000	00				
Combines Investigation Act.....	50,000	00				
Conciliation and Labour Act.....	55,000	00				
Employment Offices Co-ordination Act (Administration)	17,000	00				
Employment Offices Co-ordination Act (under statute)	150,000	00				
Fair Wages and Inspection Officers.....	10,000	00				
Industrial Disputes Investigation Act.....	23,688	77				
International Labour Conference.....	18,512	02				
Joint Industrial Councils.....	4,737	63				
Carried forward.....	403,938	42	270,172	26	5,152,421	61

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	403,938	42	270,172	26		
SCHEDULE No. 8— <i>Concluded</i>						
<i>Labour—Concluded</i>						
Old Age Pensions Act—Administration.....	10,000	00				
Old Age Pensions Act—under statute.....	1,537,173	55				
Technical Education Act—Administration.....	2,000	00				
Technical Education Act—under statute.....	413,286	89				
<i>Miscellaneous—</i>			2,366,398	86		
Canadian National Safety League.....	10,000	00				
Gratuities.....	420	00				
			10,420	00		
SCHEDULE No. 9					2,646,991	12
<i>Legislation—</i>						
Senate.....	528,970	32				
House of Commons.....	1,608,539	63				
Library—Salaries.....	44,882	86				
Contingencies.....	9,869	73				
Books for General Library.....	17,849	01				
Books for Library of American History.....	934	72				
Printing reports.....	786	30				
Printing of Parliament.....	80,300	05				
Elections.....	26,292	02				
Payment to G. W. Yates for preparing digest of evidence and report of Committee on the St. Lawrence Water- ways.....	500	00				
			2,318,924	64		
<i>Miscellaneous—</i>						
Chief Electoral Officer, salary.....	6,000	00				
Office of the Chief Electoral Officer.....	13,184	64				
Gratuities.....	898	00				
			20,082	64		
SCHEDULE No. 10					2,339,007	28
<i>Marine—</i>						
Civil Government—Salaries.....	415,850	81				
Contingencies.....	55,204	77				
			471,055	58		
<i>Ocean and River Service—</i>						
Dominion Steamers and Icebreakers.....	1,647,499	35				
Dominion Steamers, replacement of three.....	173,000	00				
Construction of an Icebreaker for Hudson Strait.....	791,299	14				
Construction of a new steamer for Hydrographic Surveys.....	820	23				
Construction of a new Icebreaker for service in the St. Lawrence River.....	747,028	48				
Canadian Delegates to the International Conference on Safety of Life at Sea.....	9,233	33				
Commission to enquire into Radio Broadcasting situ- ation.....	20,602	52				
Establishment of a Patrol Service to investigate con- ditions of navigation in Hudson Strait and Hudson Bay.....	12,989	34				
Examination of Masters and Mates.....	20,460	93				
Exchequer Court Award—Compensation for S.S. <i>Sarnor</i>	11,000	00				
Hydrographic, Tidal and Current Surveys.....	508,245	86				
Inspection of Live Stock shipments.....	3,670	90				
Investigation into wrecks.....	4,754	05				
Life Saving Service.....	60,478	47				
Radio Service—General improvement of reception con- ditions to licensed broadcast listeners.....	225,264	70				
Radiotelegraph Service.....	829,498	82				
Registration of shipping.....	2,401	85				
Relief of distressed seamen.....	3,477	53				
Removal of obstructions in navigable waters.....	222	81				
Refund to the Quebec Salvage and Wrecking Co., Ltd. .	4,139	75				
Schools of navigation.....	7,173	92				
Subsidies for wrecking plants.....	45,000	00				
Miscellaneous and unforeseen expenses.....	8,070	32				
			5,136,332	30		
Carried forward.....			5,607,387	88		

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			5,607,387	88		
SCHEDULE No. 10— <i>Concluded</i>						
<i>Marine—Concluded</i>						
<i>Lighthouse and Coast Service—</i>						
Administration of Pilotage.....	118,099	33				
Agencies, rents and contingencies.....	227,064	45				
Allowance to Harbour Master at Amherstburg.....	600	00				
Breaking ice in Thunder Bay, Lake Superior and other points.....	44,000	00				
Breaking ice in Thunder Bay, additional payment for season 1928-29.....	14,000	00				
Compassionate allowance to John Davidson.....	500	00				
Construction of lights and aids to navigation.....	684,482	31				
Exchequer Court Award—Expropriation of lands in the Parish of Varennes, County of Vercheres, P.Q.....	3,356	70				
Maintenance and repairs to lighthouses.....	915,977	59				
Maintenance and repairs to wharves.....	7,685	88				
Pensions to retired pilots.....	8,725	00				
Payments to certain merchants of Victoria, B.C., for materials used in the construction of two lighthouse tenders.....	8,207	96				
Salaries and allowances to lightkeepers.....	733,977	02				
Signal Service.....	107,946	81				
			2,874,623	05		
<i>Scientific Institutions—</i>						
Meteorological Service.....			316,706	50		
			140,252	72		
<i>Steamboat Inspection.....</i>						
			4,842	52		
<i>Miscellaneous—</i>						
Gratuities.....					8,943,812	67
SCHEDULE No. 11						
<i>Mines—</i>						
Civil Government—Salaries.....			579,581	29		
Contingencies.....			11,918	84		
					591,500	13
<i>Geological Survey—</i>						
Explorations, surveys and investigations.....	229,597	31				
Publications of reports, etc.....	55,000	00				
Maintenance of offices and museum, etc.....	59,966	97				
Museum equipment.....	24,774	87				
Purchase of specimens.....	3,000	00				
			372,339	15		
<i>Mines Branch—</i>						
Compensation to J. H. Fortune, caretaker of Mines Branch Building.....	400	00				
Investigation of mineral resources, ore deposits, etc.....	281,960	92				
Operation of Peat Bog at Alfred, Ontario.....	18,137	69				
Organization and equipment of Explosives Division.....	9,607	08				
Publication of reports, etc.....	44,730	00				
Payment of expenses in connection with the movement of coal from Alberta to Ontario and from Nova Scotia and New Brunswick to Quebec and Ontario.....	55,693	90				
Transportation charges on ore shipments.....	214	54				
Dominion of Canada Assay Office—Maintenance.....	22,665	04				
			433,409	17		
					805,748	32
<i>Miscellaneous—</i>						
Grant to the Canadian Institute of Mining and Metallurgy.....			3,000	00		
Grant to the Imperial Institute.....			12,848	00		
Gratuities.....			570	00		
					16,418	00
					1,413,666	45

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—*Continued*

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 12						
<i>National Defence—</i>						
Civil Government—Salaries.....			743,845	01		
Contingencies.....			69,749	35		
					813,594	36
<i>Militia Services—</i>						
Administration.....	296,191	63				
Cadet Services.....	499,973	09				
Contingencies.....	39,195	13				
Engineer Services and Works.....	823,520	55				
General Stores.....	890,941	80				
Manufacturing Establishments.....	586,062	52				
Non-Permanent Active Militia.....	2,313,939	03				
Permanent Force.....	4,948,343	85				
Royal Military College.....	374,724	35				
Topographical Survey.....	44,999	33				
Transport and Freight.....	214,857	84				
			11,032,749	12		
<i>Naval Service—</i>						
Maintenance.....			3,013,396	47		
<i>Air Services—</i>						
Royal Canadian Air Force—Maintenance, operation and training.....	1,947,346	51				
Civil Air Operations—Flying operations for other Government Departments, control of civil aviation and establishment of air routes, airship bases, etc.....	3,973,323	46				
			5,920,669	97		
<i>General Services—</i>						
Civil Pensions.....	1,385	42				
Construction of magazine, Halifax.....	95,146	26				
Compassionate grant to C. F. Kilpatrick.....	1,200	00				
Compassionate grant to Eugene Giroux.....	897	75				
Repairs to Quebec Gates and Walls.....	49,923	96				
Repairs to "A" Block, Ordnance Depot, Kingston—Governor General's Warrant.....	18,400	00				
Replacement of Military Clothing, Ordnance Depot, Kingston—Governor General's Warrant.....	59,998	81				
			226,952	20		
					20,193,767	76
<i>Government of the Northwest Territories—</i>						
Mackenzie Basin System—Radio Services.....					140,161	37
<i>Miscellaneous—</i>						
Battlefields Memorials.....			168,966	63		
Imperial War Graves Commission.....			573,793	83		
Gratuities.....			1,257	66		
					744,018	12
					21,891,541	61
SCHEDULE No. 13						
<i>National Revenue—</i>						
Civil Government—Salaries.....	666,587	19				
Contingencies.....	30,101	51				
			696,688	70		
Salaries and Contingencies.....	7,410,727	58				
Inspectors, Dominion Appraisers, Investigators and Board of Customs.....	1,080,113	90				
Maintenance of revenue cruisers and for preventive service	1,658,146	61				
Miscellaneous.....	696,528	10				
Secret preventive service.....	43,481	12				
Administration of the Business Profits War Tax Act, 1916, and the Income War Tax Act, 1917, and amendments.....	2,138,997	06				
Payments to Messrs. Clarkson, Gordon, Dilworth, Guilfoyle and Nash for services in connection with the investigation and prosecution of breweries.....	15,000	00				
Payments to Messrs. Clarkson, Gordon, Dilworth, Guilfoyle and Nash for services in connection with the special Sales Tax investigations.....	7,989	57				
Carried forward.....	13,050,983	94	696,688	70		

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	13,050,983	94	696,688	70		
SCHEDULE No. 13—Concluded						
National Revenue—Concluded						
Compassionate allowance to—						
Widow of C. E. McDonald.....	3,000	00				
Widow of Turner Ingalls.....	3,000	00				
Henry Mayo.....	2,500	00				
Edwin P. Clark.....	2,673	00				
Gratuities in lieu of leave on retirement.....	68,454	39				
			13,130,611	33		
Miscellaneous—						
Gratuities.....			16,570	98		
					13,843,871	01
SCHEDULE No. 14						
Pensions—						
Judges.....			193,844	49		
Militiamen, Rebellion of 1885 and generally.....			27,258	45		
Militia Pensions Act of 1901.....			853,964	11		
Pensions payable to Mounted Police, Prince Albert						
Volunteers and Police Scouts on account of the						
Rebellion of 1885.....			829	15		
Annuity to the Right Honourable W. S. Fielding.....			2,305	54		
Annuity to Dr. F. G. Banting.....			7,500	00		
Annuity to Dr. Charles E. Saunders.....			5,000	00		
Annuity to Dougald Carmichael.....			499	92		
Annuity to Mrs. Rebecca J. Farrow.....			2,109	75		
Civil Flying.....			240	00		
European War and Active Militia.....			39,093,289	33		
Salaries of the Board of Pension Commissioners.....			19,000	00		
Mounted Police (Statutory).....			146,420	97		
Salaries—Chairman and four members of the Federal						
Appeal Board.....			37,000	00		
Pensions to families of members of the Mounted Police						
Force who lost their lives whilst on duty.....			5,132	36		
Pensions to—						
The unmarried sister of the late Col. Harry Baker,						
M.P.....			699	96		
J. Langlois Bell.....			600	00		
Captain J. E. Bernier.....			2,400	00		
James Elliott.....			672	00		
The widow of the late Thos. B. Flint.....			149	17		
Mrs. Jean Laird Farrell.....			650	00		
Mrs. Alice Joynton.....			499	92		
Mrs. Violet L. Jenkin.....			600	00		
Mrs. Wm. McDougall.....			1,200	00		
Alice Morson Smith.....			600	00		
J. L. Weller.....			3,500	00		
Mrs. Beatrice Williams.....			600	00		
					40,406,565	12
SCHEDULE No. 15						
Pensions and National Health—						
Civil Government—Salaries.....			201,647	70		
Contingencies.....			68,546	74		
					270,194	44
Care of patients and medical examination of pensioners..	2,360,714	86				
Employers' Liability Compensation.....	35,727	75				
Federal Appeal Board.....	128,653	71				
Interest on Funds.....	2,470	97				
Operating expense and working capital.....	279,976	12				
Pay and Allowances.....	2,038,811	47				
Salaries—Administrative, clerical, dental, technical, etc.	2,972,458	06				
Sheltered employment.....	127,465	78				
Unemployment relief.....	517,947	19				
Vocational Loans.....	50	68				
Grant to the Dominion Executive Council of the Cana-						
dian Legion, British Empire Service League.....	10,000	00				
Grant to Last Post Fund.....	20,000	00	8,494,276	59		
Carried forward.....			8,494,276	59	270,194	44

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			8,494,276	59	270,194	44
SCHEDULE No. 15—Concluded						
<i>Pensions and National Health—Concluded</i>						
<i>Health—</i>						
Administration of the Acts respecting Food and Drugs, Maple Products, Opium and Narcotic Drugs and Proprietary or Patent Medicines, including the Lab- oratory of Hygiene.....	156,566	86				
Immigration Medical Inspection.....	287,171	63				
Marine Hospitals.....	253,649	31				
Quarantine.....	210,000	00				
Pollution of Inland Waters.....	15,996	36				
Venereal Diseases.....	97,987	03				
			1,021,371	19		
<i>Miscellaneous—</i>						
Canadian Branch of the St. John Ambulance Association.....		5,000	00		9,515,647	78
Canadian Social Hygiene Council.....		20,000	00			
Canadian National Committee for Mental Hygiene.....		20,000	00			
Canadian Council on Child Welfare.....		10,000	00			
Canadian Tuberculosis Association.....		25,000	00			
Canadian Dental Hygiene Council.....		5,000	00			
Victorian Order of Nurses.....		10,000	00			
Gratuities.....		3,253	49			
					98,253	49
					9,884,095	71
SCHEDULE No. 16						
<i>Post Office—</i>						
Civil Government—Salaries.....	1,317,448	57				
Contingencies.....	187,307	59				
			1,504,756	16		
Salaries and Allowances.....	17,520,315	07				
Mail Service.....	15,982,299	39				
Miscellaneous.....	1,164,086	35				
Yukon Territory.....	148,576	89				
Compensation to the widow of the late Thomas Jackson	1,000	00				
Payment of allowances to Railway Mail Clerks in charge of Railway Post Offices.....	131,281	47				
Readjustment of the salaries of certain postal employees in Western Canada who were dismissed in 1919 and subsequently re-employed.....	89,070	10				
			35,036,629	27		
<i>Miscellaneous—</i>						
Gratuities.....			15,626	66		
					36,557,012	09
SCHEDULE No. 17						
<i>Public Works—</i>						
Civil Government—Salaries.....	663,789	10				
Contingencies.....	84,544	25				
			748,333	35		
<i>Construction, Maintenance, Repairs, etc. (Appendix No. 11):</i>						
Public Buildings.....	9,346,168	57				
Harbours and Rivers.....	5,449,657	95				
Dredging.....	1,538,717	40				
Roads and Bridges.....	82,361	32				
Telegraph and Telephone Lines.....	192,699	10				
Miscellaneous.....	935,833	40				
Subsidies to Dry Docks (under statute).....	588,921	34				
			18,134,359	08		
<i>Collection of Revenue (Appendix No. 11)—</i>						
Sundry Works.....	230,937	89				
Telegraph and Telephone Lines.....	693,172	04				
			924,109	93		
<i>Miscellaneous—</i>						
Asoka Column for Canada at Delhi, India.....	3,000	00				
Gratuities.....	9,229	43				
			12,229	43		
					19,819,031	79

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 18						
<i>Railways and Canals—</i>						
Civil Government—Salaries.....			274,931	16		
Contingencies.....			44,931	30		
					319,862	46
<i>Chargeable to Income—</i>						
<i>Canals—</i>						
Carillon-Grenville, Improvements.....		9,406	74			
Chambly, Improvements.....		65,990	01			
Lachine, Improvements.....		33,284	32			
Ontario—St. Lawrence Canals, Williamsburg, Improvements.....		70,897	26			
Port Colborne Elevator, Improvements.....		21,379	86			
St. Annes Lock, Improvements.....		3,622	49			
Trent Canal, Improvements.....		125,752	22			
Welland Canal, Improvements.....		10,420	07			
Settlement of claims of T. A. Brown Co., Ltd.....		1,365	67			
Surveys and Inspections—Canals.....		6,398	33			
				348,516	97	
<i>Railways—</i>						
Board of Railway Commissioners for Canada—						
Salaries—Statutory.....		50,833	33			
Maintenance and Operation.....		299,853	58			
Governor-General's Cars—Repairs, etc.....		2,464	92			
Supplement to Pension Allowances payable under the provisions of the Intercolonial and Prince Edward Island Railway Employees Provident Fund.....		33,956	73			
Exchequer Court Awards—Supreme and Exchequer Courts costs <i>re</i> case The King <i>vs.</i> Hereford Railway Co.....		1,011	50			
				388,120	06	
<i>Maritime Freight Rates Act, 1927—</i>						
Difference between tariff tolls and the normal tolls, on all lines other than Canadian National Railway on traffic moved during 1929.....		811,149	41			
Canadian National Railway, deficit in receipts and revenues on the Eastern Lines during 1929, \$2,060,000.00. Balance due for 1928, \$221,527.75....		2,281,527	75			
Canadian National Railway Company, deficit in receipts and revenues on the Eastern Lines, as defined in the Maritime Freight Rates Act, during 1929, less the portion of such deficit occurring on account of the application of the said Act, \$4,526,645.00, less refund of previous year's expenditure, \$218,287.99.....		4,308,357	01			
				7,401,034	17	
<i>Miscellaneous—</i>						
Government Employees' Compensation Act.....		452,626	11			
Miscellaneous Services, including salaries and expenses of experts employed temporarily.....		86,100	07			
Printing and Stationery.....		4,503	95			
				543,230	13	
						8,680,901 33
<i>Chargeable to Collection of Revenue—</i>						
<i>Canals—</i>						
Staff and repairs.....						2,459,989 86
<i>Miscellaneous—</i>						
Compassionate allowance to Capt. Chas. Tupper Knowlton.....				2,000	00	
Honorarium to Geo. W. Yates for extra services as Acting Deputy Minister, Department of Railways and Canals.....				1,000	00	
St. Lawrence Ship Canal, surveys and investigations, including the Canadian National Advisory Council.....				55,139	99	
Gratuities.....				3,990	51	
						62,130 50
						11,522,884 15

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 19						
<i>Royal Canadian Mounted Police—</i>						
Civil Government—Salaries.....	37,660	00				
Contingencies.....	8,465	67				
			46,125	67		
Pay of Force.....	1,208,067	07				
Subsistence, billeting and travelling expenses, forage, fuel, light, etc.....	1,595,407	70				
Compensation to members of the Force for injuries received whilst in the performance of duty.....	7,777	77				
Enforcement of Federal Statutes.....	45,264	18				
Special services re enforcement of the Opium and Narcotic Drug Act.....	44,800	68				
Compensation to Wm. Pinsky.....	500	00				
			2,901,817	40		
<i>Miscellaneous—</i>						
Grant to the Chief Constables Association of Canada.....			500	00		
					2,948,443	07
SCHEDULE No. 20						
<i>Soldier and General Land Settlement—</i>						
Soldier Land Settlement, Administration.....			819,253	88		
General Land Settlement, Administration.....			542,867	98		
					1,362,121	86
SCHEDULE No. 21						
<i>Trade and Commerce—</i>						
Civil Government—Salaries.....			551,804	91		
Contingencies.....			33,810	49		
					585,615	40
British and Foreign News Service.....	32,000	00				
Canada Grain Act—Administration, including management, operation, maintenance, and equipment of elevators.....	2,271,227	45				
Canadian Government Motion Picture Bureau.....	74,128	50				
Commercial Intelligence Service.....	663,378	14				
Copper Bounties Act—Administration.....	350	00				
Dominion Bureau of Statistics.....	139,995	60				
Electricity and Fluid Exportation Act—Administration.....	210	14				
Exhibitions—exclusive of amount spent by Department of Immigration and Colonization.....	253,562	55				
Exhibitions and State Fairs in Great Britain and the United States, spent by Department of Immigration and Colonization.....	107,136	02				
Exhibition Building, London, England.....	24,947	91				
Gas and Electricity Inspection.....	223,936	72				
National Research Council.....	398,256	60				
International Customs Tariffs Bureau.....	1,321	42				
Printing of Parliamentary and Departmental Publications.....	134,500	00				
Precious Metals Marking Act—Administration.....	5,005	65				
Publicity and Advertising in Canada and abroad, other than Countries of Europe.....	94,050	37				
Publicity and Advertising in the British Isles.....	125,546	08				
Weights and Measures Inspection.....	344,566	35				
			4,894,119	50		
<i>Bounties—</i>						
Copper Bars.....	32,536	07				
Hemp.....	7,493	77				
			40,029	84		
					4,934,149	34
<i>Mail Subsidies and Steamship Subventions—</i>						
<i>Atlantic Ocean—</i>						
Canada and South Africa.....	114,583	26				
Eastern Canada and Brazil, Uruguay and the Argentine Republic.....	110,000	00				
			224,583	26		
Carried forward.....			224,583	26	5,519,764	74

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....			224,583	26	5,519,764	74
SCHEDULE No. 21—Concluded						
Trade and Commerce—Concluded						
Mail Subsidies and Steamship Subventions—Concluded						
Pacific Ocean—						
British Columbia and Australia.....	61,600	00				
Canada and New Zealand.....	100,000	00				
Prince Rupert, B.C., and Queen Charlotte Island.....	21,000	00				
Victoria, Vancouver, wayports and Skagway.....	25,892	86				
Victoria and West Coast of Vancouver Island.....	15,000	00				
Vancouver and Northern Ports of British Columbia.....	24,800	00				
Vancouver and Ports on Howe Sound.....	5,000	00				
Vancouver and the British West Indies.....	33,000	00				
			286,292	86		
Local Services—						
Baddeck and Iona.....	10,500	00				
Charlottetown and Pictou.....	35,000	00				
Charlottetown, Victoria and Holliday's Wharf.....	5,000	00				
Dalhousie, N.B., and Carleton, Que.....	3,000	00				
Grand Manan and the Mainland.....	20,000	00				
Halifax, Canso and Guysboro.....	9,000	00				
Halifax, La Have and La Have River Ports.....	6,000	00				
Halifax and Sherbrooke.....	1,500	00				
Halifax, Spry Bay and Cape Breton Ports.....	6,000	00				
Halifax and Bay St. Lawrence.....	4,800	00				
Halifax, South Cape Breton and Bras d'Or Lake Ports.....	5,000	00				
Halifax and West Coast Cape Breton.....	6,000	00				
Mainland, Miscou and Shippegan.....	2,000	00				
Mulgrave, Arichat and Petit de Grat.....	14,285	25				
Mulgrave and Canso.....	27,400	00				
Mulgrave and Guysboro.....	13,954	54				
Murray Bay and North Shore.....	20,562	50				
Newcastle, Neguac and Escuminac.....	4,500	00				
Parrsboro, Kingsport and Wolfville.....	5,000	00				
Peelee Island and the Mainland.....	11,000	00				
Pictou, Mulgrave and Cheticamp.....	11,000	00				
Pictou, New Glasgow and Antigonish County Ports.....	1,000	00				
Pictou, Souris and the Magdalen Islands.....	50,000	00				
Port Mulgrave, St. Peter's, Irish Cove and Marble Mountain.....	10,139	18				
Quebec, Natashquan and Harrington.....	85,000	00				
Quebec or Montreal and Gaspé.....	60,000	00				
Rimouski and Pointe aux Outardes.....	12,500	00				
Rivière du Loup and Tadoussac.....	14,625	00				
St. Catherine's Bay and Tadoussac.....	5,000	00				
St. John and Bear River.....	2,000	00				
St. John and Bridgetown.....	1,000	00				
St. John and Digby.....	15,000	00				
St. John, Digby, Annapolis and Granville.....	2,000	00				
St. John, Margaretville and other ports on the Bay of Fundy.....	4,500	00				
St. John and Minas Basin ports.....	5,000	00				
St. John and St. Andrews.....	4,000	00				
St. John, Westport and Yarmouth.....	18,000	00				
St. John and Weymouth.....	1,500	00				
Summerville, Burlington and Windsor, N.S.....	500	00				
Sydney and Bay St. Lawrence.....	18,000	00				
Sydney and Bras d'Or Lake ports.....	18,000	00				
Sydney and Whycomagh.....	16,000	00				
Grant to the Province of British Columbia for the improvement of the Mail Service on inland waters in that Province.....	3,000	00				
Inspection of subsidized steamship services.....	4,293	89				
			572,560	36		
Miscellaneous—						
Gratuities.....					1,083,436	48
					3,220	00
					6,606,421	22

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—Continued

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 22						
<i>Other Departments—</i>						
<i>Archives—</i>						
Civil Government—Salaries.....	107,382	43				
Contingencies.....	17,896	99				
			125,279	42		
<i>Miscellaneous—</i>						
Public Archives.....	77,653	63				
Gratuities.....	220	00				
			77,873	63		
<i>Auditor General's Office—</i>					203,153	05
Civil Government—Salaries.....	358,458	55				
Contingencies.....	42,763	12				
			401,221	67		
<i>Miscellaneous—</i>						
Gratuities.....			736	66		
					401,958	33
<i>Civil Service Commission—</i>						
Civil Government—Salaries.....			232,062	20		
Contingencies.....			76,000	41		
					308,062	61
<i>External Affairs—</i>						
Civil Government—Salaries.....	108,329	62				
Contingencies.....	46,745	14				
High Commissioner of Canada in England.....	8,422	61				
			163,497	37		
Arbitration Expenses, "I'm Alone" case—Governor Gen- eral's Warrant.....	2,705	40				
Canadian Representation in Washington, U.S.A.....	99,676	08				
Canadian Representation in Paris.....	78,872	78				
Canadian Representation in Tokyo.....	74,959	42				
Canadian Representation in Geneva.....	22,482	07				
Canadian Delegation to the League of Nations.....	19,333	34				
Contribution to the League of Nations, including Secre- tariat.....	171,481	53				
High Commissioner's Office, London, England—Salaries and expenses.....	109,584	30				
International Joint Commission.....	59,970	91				
Passport Office—Administration.....	27,057	74				
Publications of the League of Nations for Members of Parliament.....	3,000	00				
			669,123	57		
<i>Miscellaneous—</i>						
Indemnity to E. Churchouse in lieu of six months' leave of absence previous to superannuation.....	315	00				
Gratuities.....	280	00				
Unforeseen Expenses.....	39,027	05				
			39,622	05		
					872,242	99
<i>Insurance—</i>						
Civil Government—Salaries.....	90,060	26				
Contingencies.....	58,985	34				
			149,045	60		
<i>Miscellaneous—</i>						
Expenses of work in the interest of fire prevention.....			9,924	41		
					158,970	01
<i>Office of the Prime Minister—</i>						
Civil Government—Salaries.....					25,409	50
<i>Office of the Secretary to the Governor General—</i>						
Civil Government—Salary: The Governor General.....			48,666	66		
Salaries: Office of the Secretary to the Governor General.....			34,335	00		
Contingencies.....			87,463	87		
					170,465	53
<i>Printing and Stationery</i>						
Civil Government—Salaries.....	80,345	00				
Contingencies.....	12,184	99				
			92,529	99		
Canada Gazette.....	34,783	83				
Distribution of Parliamentary Documents.....	49,209	63				
Plant—New.....	42,030	39				
Carried forward.....	126,023	85	92,529	99	2,140,262	02

SCHEDULES OF ORDINARY EXPENDITURE, 1929-30—*Concluded*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	126,023	85	92,529	99	2,140,262	02
SCHEDULE No. 22— <i>Concluded</i>						
<i>Printing and Stationery—Concluded</i>						
Plant repairs and renewals.....	29,404	23				
Printing, binding, etc., the Annual Statutes.....	12,939	19				
Printing and binding Government Publications for sale and distribution to Departments and the Public.....	39,999	26				
			208,366	53		
<i>Miscellaneous—</i>						
Gratuities.....			840	68	301,737	20
<i>Privy Council—</i>						
Civil Government—Salaries.....	49,164	89				
Contingencies.....	5,490	76				
			54,655	65		
<i>Miscellaneous—</i>						
Unforeseen Expenses.....			3,379	67	58,035	32
<i>Secretary of State—</i>						
Civil Government—Salaries.....	339,205	21				
Contingencies.....	67,575	89				
			406,781	10		
<i>Miscellaneous—</i>						
Expenses under the Naturalization Acts.....	10,481	84				
Patent Record.....	34,946	03				
International Copyright Union Office.....	1,700	12				
			47,127	99	453,909	09
					2,953,943	63
SCHEDULE No. 23						
<i>Miscellaneous—</i>						
<i>Grants and Contributions to the—</i>						
Canadian General Council of the Boy Scouts' Association	15,000	00				
Canadian National Institute for the Blind.....	15,000	00				
Corporation of the City of Ottawa.....	100,000	00				
Dominion Council of the Girl Guides.....	6,000	00				
Interparliamentary Union for Peace.....	400	00				
Montreal Association for the Blind.....	5,000	00				
National Battlefields Commission.....	75,000	00				
Federal District Commission—Annual Grant.....	200,000	00				
Federal District Commission—Capital Expenditure.....	380,000	00				
Royal Astronomical Society.....	2,000	00				
Royal Canadian Academy of Arts.....	2,500	00				
Royal Society of Canada.....	8,000	00				
L'Institut Nazareth de Montreal—To assist in work with the Blind.....	5,000	00				
			813,900	00		
Dominion's proportion of compassionate allowance to certain British ex-Officers.....			7,948	06		
Empire Parliamentary Association—Visit to Canada.....			46,873	20		
Empire Parliamentary Association—Subscriptions to Publications.....			2,000	00		
Expenses in connection with the Early French Colonial Historical Exhibition in Paris.....			2,500	00		
Government Contracts Supervision Committee.....			18,286	11		
Grant towards construction of a monument to Sir Louis H. Lafontaine.....			10,000	00		
Grant to the International Council of Nurses—Towards expenses of meeting held in Canada in 1929.....			5,000	00		
Grant to the Western Stock Growers.....			5,000	00		
Grant for the restoration of the schooner <i>Nancy</i>			3,000	00		
Grants, pending consideration of Provincial Subsidies, to the Provinces of—						
Nova Scotia.....	875,000	00				
New Brunswick.....	600,000	00				
Prince Edward Island.....	125,000	00				
			1,600,000	00		
Negotiation of Treaties.....			4,806	37		
Salaries and expenses of the advisors engaged in Tariff Enquiry.....			102,806	73	2,622,120	47

SCHEDULES OF SPECIAL EXPENDITURE, 1929-30

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 24						
<i>Adjustment of War Claims—</i>						
National Defence—Militia.....	88,606	71				
Naval.....	356	03				
Secretary of State.....			88,962	74		
			6,033	01		
					94,995	75
SCHEDULE No. 25						
<i>Cost of Loan Flotations—</i>						
Commission of $\frac{1}{8}$ of one per cent paid to banks for redemption of matured bonds—						
5½% Victory Loan 1917, due 1922.....	7	50				
5½% Victory Loan 1918, due 1923.....	16	13				
5½% Victory Loan 1919, due 1924.....	8	12				
5% War Loan 1915, due 1925.....	11	16				
			42	91		
5½% Bond Loan 1919-29, New York—						
Commission of $\frac{3}{8}$ of one per cent for redemption of matured bonds.....			17,028	38		
					17,071	29
SCHEDULE No. 26						
<i>Miscellaneous Charges—</i>						
Civil Service Superannuation Act 1924, Chap. 24, R.S. 1927 (Government contribution to the Fund).....			1,892,590	92		
Halifax Dry Dock—difference between cost and sale price.....			302,827	43		
Halifax Shipyards Limited—Payments received on account of Principal and credited to Casual Revenue.....			300,000	00		
Ottawa Buildings—Elgin and Sparks Sts.—Salvage of materials, originally credited to Casual Revenue, transferred to Capital.....			8,311	00		
Railway Grade Crossing Fund—9-10 Geo. V, Chap. 30.....			475,055	11		
Railways and Canals, Transfer re Outstanding Cheques.....			5,297	15		
Outstanding Cheques paid during the years 1927-28-29 and 1930 charged to Outstanding Cheques account and for which provision had been transferred to Casual Revenue.....			42,241	33		
War Tax Revenue, Trust and Loan Companies—Refunds in excess of Revenue.....			626	34		
					3,026,949	28
SCHEDULE No. 27						
<i>Non-Active Accounts written off and charged to Consolidated Fund—</i>						
Soldier Land Settlement Loans—Revaluation of live stock and land revaluations.....			3,637,172	69		
Seed Grain and Relief Accounts, Interior Department.....			94,362	89		
					3,731,535	58

COMPARATIVE SCHEDULES OF ORDINARY REVENUE FOR THE
FISCAL YEARS 1928-29 AND 1929-30

	1928-29		1929-30			
	\$	cts.	\$	cts.		
SCHEDULE No. 28						
National Revenue—						
Customs Import Duties—						
Alberta.....	5,748,578	93	6,059,330	56		
British Columbia.....	16,978,615	42	17,898,924	28		
Manitoba.....	10,881,695	71	10,249,653	34		
New Brunswick.....	3,793,843	75	4,043,867	32		
Nova Scotia.....	3,512,967	33	3,594,209	97		
Ontario.....	103,680,807	69	99,724,262	40		
Prince Edward Island.....	159,533	27	178,759	06		
Quebec.....	50,158,462	31	52,335,270	22		
Saskatchewan.....	5,449,643	81	4,787,911	87		
Yukon Territory.....	105,643	74	122,337	60		
British P.O. Parcels.....	9,043	58	7,616	72		
	200,478,835	54	199,002,143	34		
LESS—Returned Duties and Drawbacks..	13,272,503	07	19,572,222	88		
		187,206,332	47	179,429,920	46	
Excise Duties—						
Alberta.....	800,119	03	795,825	69		
British Columbia.....	1,775,112	23	1,708,390	93		
Manitoba.....	856,993	48	886,733	00		
New Brunswick.....	218,562	49	270,539	85		
Nova Scotia.....	49,799	53	70,920	70		
Ontario.....	17,522,692	75	16,423,740	98		
Prince Edward Island.....	36,589	00	35,275	48		
Quebec.....	42,462,275	52	45,009,083	03		
Saskatchewan.....	636,579	90	466,176	40		
Yukon Territory.....	1,379	27	4,835	18		
	64,360,103	25	65,671,521	24		
LESS—Refunds.....	675,149	53	635,819	82		
		63,684,953	72	65,035,701	42	
Sales Tax, Tax on Cheques, Transportation Tax, etc.—						
Sales.....	63,646,671	22	44,858,701	20		
Manufactures.....	13,425,848	01	12,683,100	05		
Stamps, including cheques embossed.....	4,071,222	10	5,747,640	71		
Transportation.....	2,647,801	39	650,171	97		
Licences, penalties and interest.....	222,623	06	213,981	62		
	84,014,165	78	64,153,595	55		
LESS—Refunds, etc.....	1,006,883	00	744,452	41		
		83,007,282	78	63,409,143	14	
Taxation Branch—						
Income Tax.....	59,422,323	25	69,020,726	23		
Business Profits Tax.....	455,232	27	173,300	45		
Trust and Loan Companies.....	7,640	88				
		59,885,196	40	69,194,026	68	
Sundry Collections—						
Casual Revenue (Appendix No. 14).....	453,796	48	450,607	71		
Fines and Forfeitures (Appendix No. 15).....	437,184	72	639,066	69		
Premium, Discount and Exchange.....	0	40	190	30		
		890,981	60	1,089,864	70	
		394,674,746	97	378,158,656	40	
SCHEDULE No. 29						
Finance—						
Chartered Banks.....		1,242,398	99	1,408,419	60	
Insurance Companies.....		894,863	98	74,415	87	
Interest on Investments (Appendix No. 13)—						
Interest on Sinking Funds.....	1,744,687	29	1,918,048	73		
Loans to Banks.....	1,671,907	71	2,234,828	93		
Loans to Provinces (Housing).....	663,518	21	612,035	59		
Advances to Foreign Governments.....	1,320,280	00	1,310,155	00		
Canadian Government Merchant Marine.....	5,334	38	2,570	15		
Montreal Harbour Debentures.....	2,023,448	94	2,157,773	48		
	7,429,176	53	8,235,411	88	1,482,835	47
Carried forward.....		2,137,262	97			

COMPARATIVE SCHEDULES OF ORDINARY REVENUE FOR THE
FISCAL YEARS 1928-29 AND 1929-30—Continued

	1928-29		1929-30					
	\$	cts.	\$	cts.				
Brought forward.....	7,429,176	53	2,137,262	97	8,235,411	88	1,482,835	47
SCHEDULE No. 29—Concluded								
Finance—Concluded								
Interest on Investments—Concluded								
Vancouver Harbour Debentures.....	827,566	23			877,598	48		
Chicoutimi Harbour Debentures.....	5,318	48			25,863	00		
Halifax Harbour Debentures.....	2,847	12			8,592	32		
St. John Harbour Debentures.....					48,824	53		
Seed Grain and Relief Advances.....	160,100	87			139,181	56		
Soldier and General Land Settlement Advances.....	1,959,717	04			1,739,152	05		
Miscellaneous.....	1,842,835	60			2,443,580	80		
			12,227,561	87			13,518,204	62
Sundry Collections—								
Casual Revenue (Appendix No. 14).....	519,232	12			512,507	03		
Fines and Forfeitures (Appendix No. 15).....					1,355	80		
Premium, Discount and Exchange.....	568,496	21			531,087	00		
			1,087,728	33			1,044,949	83
			15,452,553	17			16,045,989	92
SCHEDULE No. 30								
Interior—								
Dominion Lands—								
Canadian National Parks.....	234,538	92			245,715	03		
Coal Lands.....	421,759	95			414,248	05		
Export tax on gold.....	16,366	79			16,574	25		
Forestry Branch, sale of trees, etc.....	16,927	92			21,406	08		
Fur sales.....	28,338	87			82,271	50		
General sales.....	85,905	39			72,676	15		
Grazing lands rentals, fees and improvements.....	187,116	75			166,377	11		
Hay permits.....	9,195	62			14,320	63		
Homestead (permits) fees.....	161,890	00			175,080	00		
Improvements.....	65,461	51			57,501	26		
Irrigation sales.....	13,055	16			2,999	84		
Map sales, office fees, etc.....	30,053	15			36,021	51		
Mining fees.....	238,279	25			192,553	86		
Petroleum leases.....	391,855	98			1,047,994	37		
Pre-emption sales under Act of 1908.....	657,211	44			337,348	55		
Purchased homestead sales.....	29,489	30			15,099	36		
Rent of water power.....	67,224	26			69,364	00		
Rentals of land.....	27,502	43			61,326	14		
Quarrying leases.....	11,430	96			12,928	81		
Timber dues.....	1,395,725	57			1,131,024	43		
Trappers' and Traders' licences.....	22,715	67			26,970	95		
Suspense Account.....	1,969	09			831	87		
Miscellaneous.....	38,265	33			49,233	06		
	4,152,279	31			4,249,866	81		
LESS—Refunds.....	81,939	94			110,762	32		
			4,070,339	37			4,139,104	49
Ordinance Lands.....			24,830	09			30,276	65
Casual Revenue (Appendix No. 14).....			20,077	33			16,272	47
Fines and Forfeitures (Appendix No. 15).....			3,334	93			3,744	44
			4,118,581	72			4,189,398	05
SCHEDULE No. 31								
Marine—								
Harbour Dues.....	2,146	70			1,716	50		
Steamboat Inspection.....	136,932	03			131,356	12		
Wharves and Piers.....	43,731	01			51,564	32		
			182,809	74			184,636	94
Casual Revenue (Appendix No. 14).....			482,101	39			611,340	23
Fines and Forfeitures (Appendix No. 15).....			3,727	85			5,228	15
Premium, Discount and Exchange.....			312	30				
			668,951	28			801,205	32

COMPARATIVE SCHEDULES OF ORDINARY REVENUE FOR THE FISCAL YEARS 1928-29 AND 1929-30—Continued

	1928-29		1929-30		
	\$	cts.	\$	cts.	
SCHEDULE No. 32					
Patent and Copyright Office—					
Patent Fees—					
Assignments.....	20,278	77	23,999	98	
Caveats.....	1,798	65	1,972	35	
Certified copies.....	12,033	66	14,931	44	
Patents.....	391,618	59	428,518	01	
Petition under Section 17, etc.....	10	00	30	00	
Reinstatement of Application.....	510	00	345	00	
Restoration of Patent.....	2,925	00	2,820	00	
Revival of Patent.....	1,085	00	280	00	
Subscriptions to Record.....	4,185	07	5,369	69	
Sundries.....	53	17	60	24	
		434,497	91	478,326	71
Trade Marks and Copyrights—					
Assignments.....	3,213	35	3,200	50	
Certified copies.....	700	15	842	14	
Copyrights.....	9,742	70	11,106	90	
Designs.....	2,933	50	3,027	00	
Timber marks.....	19	50	39	00	
Trade marks.....	79,131	83	78,376	01	
		95,741	03	96,591	55
Casual Revenue (Appendix No. 14).....		145	25	1,594	46
Premium, Discount and Exchange.....				9	05
		530,384	19	576,521	77
SCHEDULE No. 33					
Post Office—					
Postage, Commission on Money Orders, etc, including \$591,661.87 received from Pacific Cable Board in 1929-30.....		30,611,963	69	33,345,385	30
Casual Revenue (Appendix No. 14).....		16,373	21	2,116	59
Fines and Forfeitures (Appendix No. 15).....		538	00	542	00
		30,628,874	90	33,348,043	89
SCHEDULE No. 34					
Public Works—					
Ferries.....	1,358	00	1,318	00	
Graving Docks.....	112,064	78	125,236	79	
Telegraphs.....	300,662	27	281,595	94	
		414,085	05	408,150	73
Casual Revenue (Appendix No. 14).....		226,160	56	255,323	27
Fines and Forfeitures.....		137	50		
Premium, Discount and Exchange.....				49	43
		640,383	11	663,523	43
SCHEDULE No. 35					
Railways and Canals—					
Canals—					
Beauharnois.....	9,075	31	57,036	81	
Carillon and Grenville.....	946	00	1,310	00	
Chambly.....	1,067	58	1,226	60	
Chats Falls.....	1	00	1	00	
Cornwall.....	26,206	32	26,198	81	
Lachine.....	258,054	19	235,733	62	
Murray.....	254	00	229	00	
Port Colborne Elevator.....	581,113	44	404,680	23	
Rideau.....	12,223	86	10,587	73	
Sault Ste. Marie.....	187	00	184	00	
Soulanges.....	4,235	41	4,239	24	
Ste. Anne's Lock and Canal.....	577	00	480	00	
St. Peter's.....	116	00	173	12	
Carried forward.....	894,057	11	742,080	16	

COMPARATIVE SCHEDULES OF ORDINARY REVENUE FOR THE FISCAL YEARS 1928-29 AND 1929-30—Continued

	1928-29		1929-30	
	\$	cts.	\$	cts.
Brought forward.....	894,057	11	742,080	16
SCHEDULE No. 35—Concluded				
<i>Railways and Canals—Concluded</i>				
<i>Canals—Concluded</i>				
Trent.....	95,378	03	95,934	63
Welland.....	236,615	27	201,396	08
Welland Ship Canal.....	2,430	64	2,239	50
Williamsburg.....	1,802	50	1,956	50
Miscellaneous.....	49	00	40	00
		1,230,332		55
Casual Revenue (Appendix No. 14).....		160,921		14
Fines and Forfeitures (Appendix No. 15).....		47		00
Premium, Discount and Exchange.....				
		1,391,300		69
SCHEDULE No. 36				
<i>Trade and Commerce—</i>				
<i>Electric Light Inspection—</i>				
Inspection fees.....	211,955	05	227,993	30
Electrical Standards Laboratory fees.....	225	50	171	25
Export licences, electric power.....	675	00	750	00
Export tax, electric power.....	351,108	78	318,042	36
		563,964		33
<i>Gas Inspection—</i>				
Alberta.....	5,381	60	6,748	20
British Columbia.....	7,258	40	7,433	20
Manitoba.....	3,248	60	3,705	30
New Brunswick.....	1,502	40	1,525	40
Nova Scotia.....	650	80	655	00
Ontario.....	49,331	10	49,617	20
Quebec.....	25,025	00	31,078	80
		92,397		90
<i>Weights and Measures Inspection—</i>				
Alberta.....	40,947	15	40,475	15
British Columbia.....	13,811	20	14,129	65
Manitoba.....	30,214	20	31,141	15
New Brunswick.....	8,570	70	8,401	90
Nova Scotia.....	10,792	50	12,612	80
Ontario.....	149,935	55	155,813	80
Prince Edward Island.....	2,282	20	2,391	70
Quebec.....	85,355	85	85,018	30
Saskatchewan.....	52,852	70	52,966	00
Yukon.....	106	25	103	75
Laboratory fees.....	1,881	20	1,700	40
Post Office Inspectors' fees.....	2,500	00	2,500	00
	399,249	50	407,254	60
LESS—Refunds.....	2	75	6	25
		399,246		75
Canada Grain Act.....		2,992,540		59
Casual Revenue (Appendix No. 14).....		69,925		53
Fines and Forfeitures (Appendix No. 15).....		132		00
Premium, Discount and Exchange.....				
		4,118,207		10
SCHEDULE No. 37				
<i>Other Departments—</i>				
<i>Agriculture—</i>				
Casual Revenue (Appendix No. 14).....	342,899	47	407,606	60
Fines and Forfeitures (Appendix No. 15).....	12,041	74	16,850	45
		354,941		21
Carried forward.....		354,941		21
				424,457
				05

COMPARATIVE SCHEDULES OF ORDINARY REVENUE FOR THE FISCAL YEARS 1928-29 AND 1929-30—Continued

	1928-29		1929-30	
	\$	cts.	\$	cts.
Brought forward.....		354,941 21		424,457 05
SCHEDULE No. 37—Continued				
Other Departments—Continued				
Archives—				
Casual Revenue (Appendix No. 14).....		3 75		48 40
Civil Service Commission—				
Casual Revenue (Appendix No. 14).....	5,410 00		12,341 50	
Fines and Forfeitures (Appendix No. 15).....		5,410 00	20 00	
				12,361 50
External Affairs—				
Casual Revenue (Appendix No. 14).....	141,130 96		159,571 01	
Premium, Discount and Exchange—Inter- national Joint Commission.....	1 90		11 08	
		141,132 86		159,582 09
Fisheries—				
Alberta.....	17,869 50		23,340 50	
British Columbia.....	35,426 13		25,565 03	
Manitoba.....	23,332 50		27,809 25	
New Brunswick.....	11,177 45		11,110 15	
Nova Scotia.....	11,363 25		11,410 75	
Prince Edward Island.....	2,700 50		2,911 50	
Saskatchewan.....	8,136 00		8,186 50	
Yukon.....	415 00		405 00	
	110,420 33		110,738 68	
LESS—Refunds.....	1,120 10		15 00	
	109,300 23		110,723 68	
Casual Revenue (Appendix No. 14).....	82,368 40		73,093 62	
Fines and Forfeitures (Appendix No. 15).....	14,173 42		13,747 61	
		205,842 05		197,564 91
Immigration and Colonization—				
Chinese Immigration Tax.....	18,224 00		14,345 00	
Casual Revenue (Appendix No. 14).....	39,736 95		11,590 58	
Fines and Forfeitures (Appendix No. 15).....	72,730 00		49,545 20	
Premium, Discount and Exchange.....	32 38		9 76	
		130,723 33		75,490 54
Indian Affairs—				
Casual Revenue (Appendix No. 14).....		9,250 84		11,825 08
Insurance—				
Insurance Inspection.....		131,626 08		138,779 50
Justice—				
Penitentiaries—				
Alberta.....	4,077 65		2,440 00	
British Columbia.....	6,442 98		7,325 33	
Dorchester.....	19,686 89		20,893 45	
Kingston.....	88,641 40		100,389 27	
Manitoba.....	18,658 75		18,963 09	
Saskatchewan.....	13,168 43		11,820 81	
St. Vincent de Paul.....	27,772 63		19,192 44	
	178,448 73		181,024 42	
Casual Revenue (Appendix No. 14).....	25,189 18		26,703 66	
Fines and Forfeitures (Appendix No. 15).....	483 95		280 00	
Premium, Discount and Exchange.....	0 55			
		204,122 41		208,008 08
Labour—				
Casual Revenue (Appendix No. 14).....	1,597 83		1,373 93	
Fines and Forfeitures.....	100,000 00			
		101,597 83		1,373 93
Carried forward.....		1,284,650 36		1,229,491 08

COMPARATIVE SCHEDULES OF ORDINARY REVENUE FOR THE FISCAL YEARS 1928-29 AND 1929-30—*Concluded*

	1928-29		1929-30	
	\$	cts.	\$	cts.
Brought forward.....		1,234,650 36		1,229,491 08
<i>SCHEDULE No. 37—Concluded</i>				
<i>Other Departments—Concluded</i>				
<i>Legislation—</i>				
<i>Senate—</i>				
Casual Revenue (Appendix No. 14).....	36,034	65	35,813	17
House of Commons—				
Casual Revenue (Appendix No. 14).....	28,171	32	15,376	11
Fines and Forfeitures (Appendix No. 15)			600	00
		64,205 97		51,789 28
<i>Mines—</i>				
Casual Revenue (Appendix No. 14).....	4,182	53	11,304	11
Fines and Forfeitures (Appendix No. 15)...	75	00	87	50
		4,257 53		11,391 61
<i>National Defence—</i>				
Militia Pensions.....	155,829	93	158,880	68
Royal Military College.....	20,204	00	19,820	00
Casual Revenue (Appendix No. 14).....	124,037	66	190,119	83
Fines and Forfeitures (Appendix No. 15)...	150	00	731	18
Premium, Discount and Exchange.....	2	52	3	23
		300,224 11		369,554 92
<i>Pensions and National Health—</i>				
<i>Mariners Fund—</i>				
British Columbia.....	93,868	11	86,108	32
New Brunswick.....	21,493	42	16,896	62
Nova Scotia.....	52,919	40	56,647	17
Prince Edward Island.....	1,151	14	1,050	82
Quebec.....	68,117	38	49,723	60
	237,549	45	210,426	53
LESS—Refunds.....	741	50	1,104	98
	236,807	95	209,321	55
Casual Revenue (Appendix No. 14).....	268,575	09	206,501	63
Fines and Forfeitures (Appendix No. 15)...	10,728	75	16,279	37
Premium, Discount and Exchange.....			0	02
		516,111 79		432,102 57
<i>Public Printing and Stationery—</i>				
Canada Gazette.....	80,213	96	93,890	47
Casual Revenue (Appendix No. 14).....	170,758	62	119,428	87
		250,972 58		213,319 34
<i>Royal Canadian Mounted Police—</i>				
Officers' Pension Revenue.....	6,372	94	6,470	79
Casual Revenue (Appendix No. 14).....	88,285	98	202,264	39
		94,658 92		208,735 18
<i>Secretary of State—</i>				
Casual Revenue (Appendix No. 14).....		724,508 35		668,158 18
<i>Soldier Settlement Board—</i>				
Casual Revenue (Appendix No. 14).....		220 00		935 06
<i>Superannuation Revenue—</i>				
(Appendix No. 17).....		81 00		5 39
		3,239,890 61		3,185,482 61

SCHEDULES OF SPECIAL REVENUE, 1929-30

	\$	cts.	\$	cts.	\$	cts.
SCHEDULE No. 38						
<i>War and Demobilization Receipts—</i>						
<i>Refunds of Previous Years' Expenditure—</i>						
National Defence—Militia Services.....			475	51		
Public Works.....			34,818	27		
					35,293	78
SCHEDULE No. 39						
<i>Miscellaneous Receipts and Credits—</i>						
Payments received on account of Reparations from Germany.....			4,325,274	30		
Canada Wheat Board Surplus.....			173,235	53		
Exchequer Court Award <i>re</i> S.S. Lord Dufferin.....			6,201	19		
Difference in unpaid subscriptions <i>re</i> Victory Loans 1917 and 1918, Unpaid Subscriptions Account.....			474	62		
					4,505,185	64

SCHEDULES TO CASH STATEMENT

	\$	cts.	Receipts	Payments
			\$	cts.
			\$	cts.
SCHEDULE "AA"				
Advances to Foreign Governments—				
Greek Government Account.....			215,000	00
Balance of receipts over payments as per cash statement.....				215,000 00
SCHEDULE "BB"				
Insurance and Superannuation Funds—				
Government Annuities.....			3,925,281	58
Insurance Fund, Civil Service.....			820,354	03
Insurance Fund, Returned Soldiers.....			1,953,635	46
Retirement Fund.....			735,096	86
Civil Service Superannuation and Retirement Act, 1893, now Chap. 17, R.S. 1906.....			117,310	91
Civil Service Superannuation Act, 1924, now Chap. 24, R.S. 1927.....			5,292,032	81
Balance of receipts over payments as per cash statement.....				8,972,025 63
			12,843,711	65
SCHEDULE "CC"				
Trust Funds—				
Alberta School Lands.....			838,952	03
British Columbia Pilots' Pension Fund.....			7,152	39
Burrard Dry Dock Pontoons.....			3,894	19
Canadian National Railways—				
Equipment Issue 1923, Redemption Account.....			750,000	00
Guaranteed Bond Issues, Outstanding Interest.....			2,317,375	00
Common School Fund.....			2,292	32
Contractors' Securities.....			1,946,075	49
Canadian Military Canteen Funds.....				
Decayed Pilots' Fund.....			18,564	68
Empress of Ireland Relief Fund.....			3,660	63
Halifax Pilots' Pension Fund.....			10,310	03
Immigration Guarantee and Special Funds.....			285,323	39
Intercolonial and Prince Edward Island Railway Employees' Provident Fund.....			910,168	57
Indian Funds.....			1,640,844	25
Manitoba School Lands.....			38,400	35
Military Estates No. 1.....			8,936	43
Military Estates No. 2.....			899	10
Militia and Defence—Regimental Funds.....			262	42
Royal Military College—Cadet Funds.....			59,710	31
Saskatchewan School Lands.....			1,464,243	82
Sydney Pilots' Pension Fund.....			10,094	72
St. John Pilots' Pension Fund.....			7,903	90
Soldiers' Civil Re-establishment—War Service Gratuity.....			1,274	66
Soldiers' Civil Re-establishment—Pensions, etc.....			422,736	59
Balance of receipts over payments as per cash statement.....				638,793 86
			10,749,075	27
SCHEDULE "DD"				
Advances to Provinces, Banks, etc.—				
Province of Manitoba (Housing Loans).....			50,000	00
Province of New Brunswick (Housing Loans).....			62,000	00
Province of Nova Scotia (Housing Loans).....			135,000	00
Province of Quebec (Housing Loans).....			1,507,500	00
Loans to Banks, Finance Act, Chap. 70, R.S. 1927.....			693,550,000	00
Chicoutimi Harbour Commission.....				815,000 00
Halifax Harbour Commission.....				1,272,000 00
Montreal Harbour Commission.....			1,000,000	00
St. John Harbour Commission.....				1,711,000 00
Three Rivers Harbour Commission.....				136,000 00
Vancouver Harbour Commission.....				345,000 00
Canadian Farm Loan Board—Advances.....				2,400,000 00
Canadian Farm Loan Board—Capital Stock.....				59,023 00
Canadian Farm Loan Board Special Account.....				44,989 95
Balance of receipts over payments as per cash statement.....				24,935,487 05
			696,304,500	00

SCHEDULES TO CASH STATEMENT—Continued

	\$	cts.	Receipts		Payments	
			\$	cts.	\$	cts.
SCHEDULE "EE"						
Soldier and General Land Settlement—						
Soldier Land Settlement Loans.....	6,891,933	64			1,489,894	99
General Land Settlement Loans.....	327,403	26			1,147,509	68
Land Settlement, Purchased Lands.....	25,829	25			85	90
Soldier Land Settlement Assurance Fund.....	32,345	90				
Land Settlement Suspense.....	644,581	21			508,031	22
British Land Settlement Advances.....	696,148	96			696,148	96
Balance of receipts over payments as per cash statement.....					4,776,571	47
			8,618,242	22	8,618,242	22
SCHEDULE "FF"						
Public Works Capital—Canals—						
Lachine Canal—			69,309	50		
Refunds of expenditures of previous years.....						
Trent Canal—					7,298	68
Construction and betterments.....			44	00		
Refunds of expenditures of previous years.....						
Welland Ship Canal—					9,997,853	68
Construction.....					166,143	75
Canadian Dredging Co., Ltd.....					32,000	00
Contribution: The Town of Thorold.....					18,000	00
The Village of Meritton.....					25,000	00
City of St. Catharines.....					8,713	36
Exchequer Court Awards.....			869,084	64		
Refunds of expenditures of previous years.....						
Welland Canal—			1,572	01		
Refunds of expenditures of previous years.....						
St. Ours Locks—					9,177	32
Rebuilding.....						
Balance of payments over receipts as per cash statement.....			9,324,176	64		
			10,264,186	79	10,264,186	79
SCHEDULE "GG"						
Public Works Capital—Railways—						
Canadian Government Railways—					84,243	27
Car Ferry, Prince Edward Island.....			19,680	91		
Amount transferred from Halifax Elevator (site).....			75,388	37		
Amount transferred from Hudson Bay Railway.....						
Intercolonial Railway—			20,767	71		
Amount transferred from Halifax Elevator (site).....			5,088	27		
Refunds of expenditures of previous years.....						
Quebec and Saguenay Railway—					228,319	89
Amount transferred from Railway Equipment Account.....						
National Transcontinental Railway—			414	88		
Refunds of expenditures of previous years.....						
Hudson Bay Railway—					75,388	37
Expenditure transferred from Canadian Government Railways.....					6,485,559	33
Construction.....			88,732	89		
Refunds of expenditures of previous years.....						
Balance of payments over receipts as per cash statement.....			6,663,437	83		
			6,873,510	86	6,873,510	86
SCHEDULE "HH"						
Public Works Capital—Miscellaneous—						
Ottawa—New Departmental building.....					1,499,992	18
Ottawa—Second New Departmental building.....					438	90
Ottawa—Parliament Building.....					38,952	13
Ottawa—National Research Council Laboratories.....					330,087	05
Refunds of expenditures of previous years.....			65	52		
Ottawa—Addition to Central Heating Plant.....					60,685	38
Carried forward.....					65	52
					1,930,155	64

SCHEDULES TO CASH STATEMENT—Continued

	\$ cts.	Receipts	Payments
		\$ cts.	\$ cts.
Brought forward.....		65 52	1,930,155 64
SCHEDULE "HH"—Concluded			
<i>Public Works Capital—Miscellaneous—Concluded</i>			
Ottawa—Expropriation of property between Sparks and Wellington Sts., east of Elgin St., Exchequer Court awards.....			542,957 68
Refunds of expenditures of previous years.....		8,311 00	
Esquimalt, B.C.—Construction of Dry Dock.....			43,097 77
Refunds of expenditures of previous years.....		9 84	
Halifax Dry Dock—Refunds of expenditures of previous years.....		1,552,827 43	
Halifax Elevator (site)—Expenditure transferred from Canadian Government Railways and Intercolonial Railway.....			40,448 62
Lower Lakes Terminals.....			1,492,541 65
Port Arthur and Fort William—Harbour improvements			489,924 19
Refunds of expenditures of previous years.....		50 00	
Quebec Harbour—Champlain Dock.....			119,993 36
Refunds of expenditures of previous years.....		6,570 78	
Government Shipbuilding Program—Proceeds of sale of ships.....		444,524 79	
Sorel—Harbour Improvements.....			629,857 26
St. Lawrence River Improvements—			
Ship Channel, including Sorel Shipyard.....	2,753,019 49		
Retaining dams.....	405,588 85		
Sorel Shipyard—Legal expenses incurred by Dame Rose Anna Cournoyer.....	201 00		
Compensation to Euclide Frechette.....	1,237 10		
Compassionate allowance to Jules Bernier.....	1,000 00		
			3,161,046 44
Sorel Shipyard—Refunds of expenditures of previous years.....		3,123 76	
Toronto—Harbour Improvements.....			16,953 27
Exchequer Court Awards.....			93,873 50
Refunds of expenditures of previous years.....		9 36	
Upper St. Lawrence River—Channel Improvements.....			28,172 64
Balance of payments over receipts as per cash statement.....		6,573,529 54	
		8,589,022 02	8,589,022 02
SCHEDULE "II"			
<i>Railway Accounts (Loans non-active)—</i>			
Canadian National Railways—Loan under Authority of Appropriation Act, 1929.....			2,932,652 91
Loans to Railways—Purchase of Railway Equipment.....		228,319 89	
Balance of payments over receipts as per cash statement.....		2,704,333 02	
		2,932,652 91	2,932,652 91
SCHEDULE "JJ"			
<i>Canadian National Steamships (Loans non-active)—</i>			
Canadian Government Merchant Marine, Limited.....			1,628,907 21
Canadian National (West Indies) Steamships, Limited.....			862,389 98
Balance of payments over receipts as per cash statement.....		2,491,297 19	
		2,491,297 19	2,491,297 19
SCHEDULE "KK"			
<i>Contingent and Special Funds—</i>			
Board of Pension Commissioners, Mennonite Funds.....			100 00
Cash Suspense.....		54,572 23	233,537 94
Defunct Banks.....		6,198 82	4,424 39
Home Bank Creditors' Relief, Suspense.....		12,531 70	251 00
Carried forward.....		73,302 75	238,313 33

SCHEDULES TO CASH STATEMENT—*Continued*

	\$	cts.	Receipts		Payments	
			\$	cts.	\$	cts.
Brought forward.....			73,302	75	238,313	33
SCHEDULE "KK"— <i>Concluded</i>						
<i>Contingent and Special Funds—Concluded</i>						
Income Tax (Appeals)—Suspense.....			6,400	00	3,600	00
Indian Affairs, Special.....			1,881	49	13,630	92
Internment Operations.....					225	42
Land Assurance Fund.....			385	47	283	00
Outstanding Cheques.....			84,261	21	29,036	93
Ontario Fire Insurance Co. (In liquidation).....			12,458	65		
Railways and Canals, Suspense.....			35	69		
Railway Grade Crossing Fund.....			475,055	11	475,055	11
Unclaimed Dividends under the Bankruptcy Act.....			4,228	69	273	67
Victory Loans, at credit of subscribers in arrears.....			802	03	736	65
Walter J. King—Suspense Account.....			90	00		
York County Loan and Savings Company (In liquidation).....						1 71
Balance of payments over receipts as per cash statement.....			102,255	65		
			761,156	74	761,156	74
SCHEDULE "LL"						
<i>Miscellaneous Current Accounts—</i>						
Advances to the Royal Mint—						
Copper Purchase Account.....			115,405	83	127,721	78
Gold Purchase Account.....			2,736,325	37	2,524,681	06
Nickel Purchase Account.....			244,000	00	257,076	96
Silver Purchase Account.....			1,028,673	87	358,731	70
Barclays Bank (Canada).....			250,000	00	250,000	00
Bond Holding Account.....			500,678	09	500,678	09
Canadian National Railways.....			24,000,000	00	45,060,541	78
Canadian National Railways (Central Vermont Railway).....			8,601,600	00	8,601,600	00
Canada Grain Act, Advance Account.....			1,540,570	63	1,536,773	24
Candidates' Election Deposit Account.....			2,600	00	2,600	00
Dominion Assay Office.....			1,055,754	57	969,032	91
Eastern Bank of Canada.....			250,000	00	250,000	00
Empire Settlement Scheme, Advances under.....			40,083	69	35,229	03
Foreign Coin.....			1,873,270	21	1,893,826	82
Halifax Pilots—General Account.....			113,481	40	113,481	40
Halifax Shipyards, Ltd.....			350,000	00	1,250,000	00
Imperial Government Account.....			70,459	11	50,828	99
King's Printer—Printing Account.....			2,356,597	63	2,413,883	10
King's Printer—Stationery Account.....			1,427,279	70	1,444,779	51
Northwest Casualty Co.....			29,000	00	29,000	00
Seed Grain and Relief—Department of the Interior.....			446,428	25	200,993	38
Saskatchewan Government Seed Grain Advances of 1908.....			741	01		
Sydney Pilots—General Account.....			53,248	83	53,248	83
St. John Pilots—General Account.....			48,283	25	48,283	25
Balance of payments over receipts as per cash statement.....			20,838,510	39		
			67,972,991	83	67,972,991	83
SCHEDULE "MM"						
<i>Miscellaneous Investments and Other Accounts (non-active)—</i>						
Quebec Harbour Commission.....					2,821,000	00
High Commissioner, Suspense.....			2,187	78		
Bonds and Interest Adjustment Account.....					3,457	73
Unpaid Coupons—New York Loans Suspense.....			200	00		
Balance of payments over receipts as per cash statement.....			2,822,069	95		
			2,824,457	73	2,824,457	73

SCHEDULES TO CASH STATEMENT—*Concluded*

	\$	cts.	Receipts \$ cts.	Payments \$ cts.
SCHEDULE "NN"				
<i>Loan Accounts (Funded Debt)—</i>				
<i>Payable in Canada—</i>				
Dominion Stock, issue B, 3½ per cent.....				2,700 00
Dominion of Canada War Loan, 1915-25, 5 per cent.....			1,000 00	13,000 00
Debenture Stock, 5 per cent (School Lands).....			1,663,000 00	
War Savings Certificates.....				4,215 00
War Savings and Thrift Stamps.....			1,000 00	7,479 25
Dominion of Canada Savings Certificates.....				1,220 00
Victory Loan, 1917, due 1922, 5½ per cent.....			150 00	121,750 00
Victory Loan, 1917, due 1927, 5½ per cent.....			450 00	15,700 00
Victory Loan, 1917, due 1937, 5½ per cent.....				50 00
Victory Loan, 1918, due 1923, 5½ per cent.....				26,950 00
Victory Loan, 1918, due 1933, 5½ per cent.....			1,150 00	
Victory Loan, 1919, due 1924, 5½ per cent.....				11,850 00
Renewal Loan, 1922, due 1927, 5½ per cent.....				34,550 00
Refunding Loan, 1923, due 1928, 5 per cent.....			100 00	198,200 00
Refunding Loan, 1926, due 1930, 4½ per cent.....				19,989,000 00
<i>Payable in New York—</i>				
New York Loan, 1919-29, 5½ per cent.....				54,491,900 00
<i>Sinking Funds—</i>				
Loan of 1909-34.....	712,037	14		
Loan of 1916-31.....	412,000	00		
Loan of 1930-50.....	1,832,638	76		
Loan of 1940-60.....	1,054,898	62		
				4,011,574 52
<i>Sinking Funds Cash.....</i>				
Balance of payments over receipts as per cash statement.....			1,660,838 92	1,351,929 44
			76,954,379 29	
			80,282,068 21	80,282,068 21
SCHEDULE "OO"				
<i>Interest Due and Outstanding—</i>				
Unpaid Interest—Domestic Loans.....			94,602,178 34	94,616,321 82
Unpaid Interest—New York Loans.....			9,594,589 50	9,729,766 75
Unpaid Interest—London Loans.....				10 95
Balance of payments over receipts as per cash statement.....			149,331 68	
			104,346,099 52	104,346,099 52

Year	Expenditure chargeable to Consolidated Fund	Expenditure chargeable to Capital	Railway Subsidies	War and Demobilization	Other charges including Cost of Loan Flotations	Total Disbursements
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1868.....	13,486,092 96	548,437 58			37,157 98	14,071,688 52
1869.....	14,038,084 00	440,418 40			429,663 24	14,908,165 64
1870.....	14,345,509 58	3,515,116 18			155,988 18	18,016,613 94
1871.....	15,623,081 72	3,670,396 51				19,293,478 23
1872.....	17,589,468 82	7,853,049 79			223,456 13	25,665,974 74
1873.....	19,174,647 92	19,859,441 17			5,718 48	39,039,807 57
1874.....	23,316,316 75	10,177,740 06			4,018 90	33,498,075 71
1875.....	23,713,071 04	6,922,742 33			2,253,097 17	32,888,910 54
1876.....	24,488,372 11	7,154,007 94			315,764 40	31,958,144 45
1877.....	23,519,301 77	7,599,709 55			1,388,984 38	32,507,995 70
1878.....	23,503,158 25	6,657,200 36			385,412 99	30,545,771 60
1879.....	24,455,381 56	5,648,331 66			676,225 30	30,779,938 52
1880.....	24,850,634 45	8,241,173 98			949,947 68	34,041,756 11
1881.....	25,502,554 42	8,176,316 50			117,771 74	33,796,642 66
1882.....	27,067,103 58	7,400,637 06			201,884 75	34,674,625 39
1883.....	28,730,157 45	14,147,359 76			21,368 75	42,898,885 96
1884.....	31,107,706 25	23,977,702 44	208,000 00		2,567,452 84	57,860,861 53
1885.....	35,037,060 12	13,220,185 35	403,245 00		502,587 06	49,163,077 53
1886.....	39,011,612 26	9,589,734 19	2,701,249 00		10,534,973 07	61,837,568 52
1887.....	35,657,680 16	4,439,938 72	1,406,533 00			41,504,151 88
1888.....	36,718,494 79	7,162,964 26	1,027,041 92		155,623 07	45,064,124 04
1889.....	36,917,834 76	4,420,313 66	846,721 83		1,333,327 81	43,518,198 06
1890.....	35,994,031 47	4,053,158 98	1,678,195 72		44,946 56	41,770,332 73
1891.....	36,343,567 96	3,115,860 04	1,265,705 87		68,074 32	40,793,208 19
1892.....	36,765,894 18	2,164,456 78	1,248,215 93		2,093,569 43	42,272,136 32
1893.....	36,814,052 90	3,088,317 60	811,394 07		139,963 34	40,853,727 91
1894.....	37,585,025 52	3,862,969 67	1,229,885 10		330,353 60	43,008,233 89
1895.....	38,132,005 05	3,030,490 40	1,310,549 10		399,293 89	42,872,338 44
1896.....	36,949,142 03	3,781,311 21	3,228,745 49		137,185 19	44,096,383 92
1897.....	38,349,759 84	3,523,160 23	416,955 30		682,880 52	42,972,755 89
1898.....	38,832,525 70	4,143,503 39	1,414,934 78		943,317 19	45,334,281 06
1899.....	41,903,500 54	5,936,342 94	3,201,220 05		501,571 76	51,542,635 29
1900.....	42,975,279 51	7,468,843 24	725,720 35		1,547,623 74	52,717,466 84
1901.....	46,866,367 84	7,695,488 34	2,512,328 86		908,681 42	57,982,866 46
1902.....	50,759,391 97	10,078,638 06	2,093,939 00		1,038,830 83	63,970,799 86
1903.....	51,691,902 76	7,052,724 58	1,463,222 34		1,538,722 13	61,746,571 81
1904.....	55,612,832 70	7,881,718 54	2,046,878 45		6,713,617 94	72,255,047 63
1905.....	63,319,682 86	11,933,491 91	1,275,629 53		2,275,334 47	78,804,138 77
1906.....	67,240,640 95	11,913,871 11	1,637,574 37		2,485,555 29	83,277,641 72
1907 9mo.	51,542,161 09	11,329,143 82	1,324,889 30		1,581,944 36	65,778,138 57
1908.....	76,641,451 59	30,429,906 86	2,037,629 30		3,469,692 12	112,578,679 87
1909.....	84,064,232 38	42,593,166 97	1,785,887 39		4,998,237 55	133,441,524 29
1910.....	79,411,747 12	29,756,353 38	2,048,097 05		4,179,576 15	115,395,773 70
1911.....	87,774,198 32	30,852,963 38	1,284,892 04		2,949,196 72	122,861,250 46
1912.....	98,161,440 77	30,939,575 95	859,400 25		7,181,665 23	137,142,082 20
1913.....	112,059,537 41	27,206,046 13	4,935,507 35		255,786 93	144,456,877 82
1914.....	127,384,472 99	37,180,175 93	19,036,236 77		2,640,161 94	186,241,047 63
1915.....	135,523,206 54	41,447,320 03	5,191,507 48	60,750,476 01	5,186,016 27	248,098,526 33
1916.....	130,350,726 90	38,566,950 50	1,400,171 42	166,197,755 47	3,186,898 20	339,702,502 49
1917.....	148,599,343 23	26,880,031 51	959,583 88	306,488,814 63	15,275,345 03	498,203,118 28
1918.....	178,284,312 83	43,111,903 63	720,404 75	343,836,801 98	10,706,786 72	576,660,209 91
1919.....	232,731,282 98	25,031,266 30	43,805 32	446,519,439 48	-7,283,581 61	697,042,212 47
1920.....	303,843,929 90	69,301,877 83	334,845 55	346,612,954 56	19,995,313 04	740,088,920 88
1921.....	361,118,145 21	40,012,807 22		16,997,543 99	402,048 06	418,820,544 48
1922.....	347,560,690 63	16,295,332 55		1,544,249 66	301,518 01	365,701,790 85
1923.....	332,293,732 09	9,807,124 34		4,464,759 76	4,042,930 53	350,608,546 72
1924.....	324,813,189 75	10,861,277 09	-1,521 82	446,082 79	7,902,758 94	344,021,786 75
1925.....	318,891,901 25	16,550,510 77		506,931 27	3,953,432 65	339,902,775 94
1926.....	320,660,479 14	16,798,548 92		191,392 79	6,330,092 09	343,980,512 94
1927.....	319,548,172 59	19,558,702 63		64,485 08	7,814,976 87	346,986,337 17
1928.....	336,167,960 98	20,635,647 85		1,656,011 00	2,705,311 47	360,164,931 30
1929.....	350,952,924 03	22,809,275 13		-669,399 06	2,067,153 06	375,159,953 16
1930.....	357,779,794 07	22,561,144 01		59,701 97	9,744,020 57	390,144,660 62
	6,530,147,962 29	962,069,317 20	76,115,221 09	1,695,668,001 38	162,787,226 44	9,426,787,728 40

DEPARTMENT OF FINANCE

Year	Consolidated Fund	Other Receipts	Total Receipts	Difference between Receipts and Expenditure	Consolidated Fund	
					Surplus	Deficit
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1868	13,687,928 49		13,687,928 49	383,760 03	201,835 53	
1869	14,379,174 52		14,379,174 52	528,991 12	341,090 52	
1870	15,512,225 65	27,431 71	15,539,657 36	2,476,956 58	1,166,716 07	
1871	19,335,560 81	39,475 98	19,375,036 79	81,558 56	3,712,479 09	
1872	20,714,813 68		20,714,813 68	4,951,161 06	3,125,344 86	
1873	20,813,469 45	157,121 90	20,970,591 35	18,069,216 22	1,638,821 53	
1874	24,205,092 54	302,560 39	24,507,652 93	8,990,422 78	888,775 79	
1875	24,648,715 04	1,008 58	24,649,723 62	8,239,186 92	935,644 00	
1876	22,587,587 05	4,468 22	22,592,055 27	9,366,089 18		1,900,785 06
1877	22,059,274 11	868,486 44	22,927,760 55	9,580,235 15		1,460,027 66
1878	22,375,011 88	31,245 49	22,406,257 37	8,139,514 23		1,128,146 37
1879	22,517,382 14	4,503,142 76	27,020,524 90	3,759,413 62		1,937,999 42
1880	23,307,406 69	57,140 21	23,364,546 90	10,677,209 21		1,543,227 76
1881	29,635,297 54		29,635,297 54	4,161,345 12	4,132,743 12	
1882	33,383,455 52	1,799,093 69	35,182,549 21	507,923 82	6,316,351 94	
1883	35,794,649 80	1,009,019 15	36,803,668 95	6,095,217 01	7,064,492 35	
1884	31,861,961 73	953,264 00	32,815,225 73	25,045,635 80	754,255 48	
1885	32,797,001 22	557,039 59	33,354,040 81	15,809,036 72		2,240,058 90
1886	33,177,040 39	302,842 41	33,479,882 80	28,357,685 72		5,834,571 87
1887	35,754,993 25	537 66	35,755,530 91	5,748,620 97	97,313 09	
1888	35,908,463 53		35,908,463 53	9,155,660 51		810,031 26
1889	38,782,870 23		38,782,870 23	4,735,327 83	1,865,035 47	
1890	39,879,925 41		39,879,925 41	1,890,407 32	3,885,893 94	
1891	38,579,310 88		39,579,310 88	2,213,897 31	2,235,742 92	
1892	36,921,871 60		36,921,871 60	5,350,264 72	155,977 42	
1893	38,168,608 85	40,000 00	38,208,608 85	2,645,119 06	1,354,555 95	
1894	36,374,693 07	190 14	36,374,883 21	6,633,350 68		1,210,332 45
1895	33,978,129 47		33,978,129 47	8,894,208 97		4,153,875 58
1896	36,618,590 72		36,618,590 72	7,477,793 20		330,551 31
1897	37,829,778 40		37,829,778 40	5,142,977 49		519,981 44
1898	40,555,238 03	1,272 03	40,556,510 06	4,777,771 00	1,722,712 33	
1899	46,741,249 54	1,853 41	46,743,102 95	4,799,532 34	4,837,749 00	
1900	51,029,994 02	1,472 69	51,031,466 71	1,686,000 13	8,054,714 51	
1901	52,514,701 13	1,631 63	52,516,332 76	5,466,533 70	5,648,333 29	
1902	58,050,790 03	1,543 31	58,052,333 34	5,918,466 52	7,291,398 06	
1903	66,037,068 93	3,311,015 17	69,348,084 10	7,601,512 29	14,345,166 17	
1904	70,669,816 82	9,434 67	70,679,251 49	1,575,796 14	15,056,984 12	
1905	71,182,772 67	3,299 83	71,186,072 50	7,618,066 27	7,863,089 81	
1906	80,139,360 07	2,033 76	80,141,393 83	3,136,247 89	12,898,719 12	
1907	67,969,328 29	2,781 36	67,972,109 65	2,193,971 08	16,427,167 20	
1908	96,054,505 81	910 91	96,055,416 72	16,523,263 15	19,413,054 22	
1909	85,093,404 35	456,175 41	85,549,579 76	47,891,944 53	1,029,171 97	
1910	101,503,710 93	112,764 65	101,616,475 58	13,779,298 12	22,091,963 81	
1911	117,780,409 78	103,918 58	117,884,328 36	4,976,922 10	30,006,211 46	
1912	136,108,217 36		136,108,217 36	1,033,864 84	37,946,776 59	
1913	168,689,903 45	524 04	168,690,427 49	24,233,549 67	56,630,366 04	
1914	163,174,394 56		163,174,394 56	23,066,653 07	35,789,921 57	
1915	133,073,481 73		133,073,481 73	115,025,044 60		2,449,724 81
1916	172,147,838 27	1,555 30	172,149,393 57	167,553,108 92	41,797,111 37	
1917	232,701,294 00		232,701,294 00	265,501,824 28	84,101,950 77	
1918	260,778,952 55		260,778,952 55	315,881,257 36	82,494,639 72	
1919	312,946,747 18		312,946,747 18	384,095,465 29	80,215,464 20	
1920	349,746,334 70		349,746,334 70	390,342,586 18	45,902,404 80	
1921	434,386,536 60	1,905,647 81	436,292,184 41	17,671,639 93	73,268,391 39	
1922	381,952,386 99	319,184 45	382,271,571 44	16,569,780 59	34,391,696 36	
1923	394,614,900 00	8,479,310 30	403,094,210 30	52,485,663 58	62,321,167 91	
1924	396,837,682 22	9,743,635 74	406,581,317 96	62,559,531 21	72,024,492 47	
1925	346,834,479 25	4,680,913 18	351,515,392 43	11,612,616 49	27,942,578 00	
1926	380,745,505 58	2,147,503 48	382,893,009 06	38,912,496 12	60,085,026 44	
1927	398,695,776 38	1,756,704 02	400,452,480 40	53,466,143 23	79,147,603 79	
1928	422,717,982 68	6,924,594 51	429,642,577 19	69,477,645 89	86,550,021 70	
1929	455,463,873 74	4,687,607 24	460,151,480 98	84,991,527 82	104,510,949 71	
1930	441,411,806 18	4,505,185 64	445,916,991 82	55,772,331 20	83,632,012 11	
	7,859,940,727 48	59,816,541 44	7,919,757,268 92	1,507,030,459 48	1,355,312,079 08	25,519,313 89

Year	Total Debt	Total Assets	Net Debt	Increase of Debt	Decrease of Debt
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1867.....	93,046,051 73	17,317,410 36	75,728,641 37	.....	.....
1868.....	96,896,666 20	21,139,531 46	75,757,134 74	28,493 37	.....
1869.....	112,361,998 39	36,502,679 19	75,859,319 20	102,184 46	.....
1870.....	115,993,706 76	37,783,964 31	78,209,742 45	2,350,423 25	.....
1871.....	115,492,682 76	37,786,165 11	77,706,517 65	.....	503,224 80
1872.....	122,400,179 36	40,213,107 32	82,187,072 04	4,480,554 39	.....
1873.....	129,743,432 19	29,894,970 55	99,848,461 64	17,661,389 60	.....
1874.....	141,163,551 33	32,838,586 91	108,324,964 42	8,476,502 78	.....
1875.....	151,663,401 62	35,655,023 60	116,008,378 02	7,683,413 60	.....
1876.....	161,204,687 86	36,653,173 78	124,551,514 08	8,543,136 06	.....
1877.....	174,675,834 97	41,440,525 94	133,235,309 03	8,683,794 95	.....
1878.....	174,957,268 96	34,595,199 05	140,362,069 91	7,126,760 88	.....
1879.....	179,483,871 21	36,493,683 85	142,990,187 36	2,628,117 45	.....
1880.....	194,634,440 68	42,182,852 07	152,451,588 61	9,461,401 25	.....
1881.....	199,861,537 51	44,465,757 11	155,395,780 40	2,944,191 79	.....
1882.....	205,365,251 97	51,703,601 19	153,661,650 78	.....	1,734,129 62
1883.....	202,159,104 30	43,692,389 84	158,466,714 46	4,805,063 68	.....
1884.....	242,482,416 21	60,320,565 95	182,161,850 26	23,695,135 80	.....
1885.....	264,703,607 43	68,295,915 29	196,407,692 14	14,245,841 88	.....
1886.....	273,164,341 11	50,005,234 02	223,159,107 09	26,751,414 95	.....
1887.....	273,187,626 43	45,872,850 99	227,314,775 44	4,155,668 35	.....
1888.....	284,513,841 89	49,982,483 73	234,531,358 16	7,216,582 72	.....
1889.....	287,722,062 76	50,192,021 11	237,530,041 65	2,998,683 49	.....
1890.....	286,112,295 10	48,579,083 33	237,533,211 77	3,170 12	.....
1891.....	289,899,229 62	52,090,199 11	237,809,030 51	275,818 74	.....
1892.....	295,333,274 10	54,201,839 66	241,131,434 44	3,322,403 93	.....
1893.....	300,054,524 74	58,373,485 13	241,681,039 61	549,605 17	.....
1894.....	308,348,023 96	62,164,994 48	246,183,029 48	4,501,989 87	.....
1895.....	318,048,754 87	64,973,827 78	253,074,927 09	6,891,897 61	.....
1896.....	325,717,536 73	67,220,103 96	258,497,432 77	5,422,505 68	.....
1897.....	332,530,131 33	70,991,534 87	261,538,596 46	3,041,163 69	.....
1898.....	338,375,984 23	74,419,585 32	263,956,398 91	2,417,802 45	.....
1899.....	345,160,902 54	78,887,455 94	266,273,446 60	2,317,047 69	.....
1900.....	346,206,979 92	80,713,173 03	265,493,806 89	.....	779,639 71
1901.....	354,732,432 52	86,252,428 83	268,480,003 69	2,986,196 80	.....
1902.....	366,358,476 59	94,529,386 97	271,829,089 62	3,349,085 93	.....
1903.....	361,344,098 37	99,737,109 50	261,606,988 87	.....	10,222,100 75
1904.....	364,962,512 17	104,094,793 57	260,867,718 60	.....	739,270 27
1905.....	377,678,579 80	111,454,413 20	266,224,166 60	5,356,448 00	.....
1906.....	392,269,680 39	125,226,702 64	267,042,977 75	818,811 15	.....
1907 9 mo.	379,966,826 09	116,294,966 13	263,671,859 96	.....	3,371,117 79
1908.....	408,207,158 25	130,246,298 41	277,960,859 84	14,288,999 88	.....
1909.....	478,535,427 02	154,605,147 85	323,930,279 17	45,969,419 33	.....
1910.....	470,663,045 99	134,394,499 66	336,268,546 33	12,338,267 16	.....
1911.....	474,941,487 42	134,899,435 38	340,042,052 03	3,773,505 70	.....
1912.....	508,338,591 77	168,419,131 06	339,919,460 71	.....	122,591 32
1913.....	483,232,555 24	168,930,929 56	314,301,625 68	.....	25,617,835 03
1914.....	544,391,368 86	208,394,518 72	335,996,850 14	21,695,224 46	.....
1915.....	700,473,814 37	251,097,731 16	449,376,083 21	113,379,233 07	.....
1916.....	936,987,802 42	321,831,631 40	615,156,171 02	165,780,087 81	.....
1917.....	1,382,003,267 69	502,816,969 89	879,186,297 80	264,030,126 78	.....
1918.....	1,863,335,898 89	671,451,836 39	1,191,884,062 50	312,697,764 70	.....
1919.....	2,676,635,724 77	1,102,104,692 33	1,574,531,032 44	382,646,969 94	.....
1920.....	3,041,529,586 91	792,660,963 12	2,248,868,623 79	674,337,591 35	.....
1921.....	2,902,482,117 04	561,603,133 35	2,340,878,983 69	92,010,359 90	.....
1922.....	2,902,347,136 96	480,211,335 23	2,422,135,801 73	81,256,818 04	.....
1923.....	2,888,827,236 65	435,050,367 91	2,453,776,868 74	31,641,067 01	.....
1924.....	2,819,610,470 28	401,827,195 40	2,417,783,274 88	.....	35,993,593 86
1925.....	2,818,066,522 94	400,628,837 35	2,417,437,685 59	.....	345,589 29
1926.....	2,768,779,184 55	379,048,085 13	2,389,731,099 42	.....	27,706,586 17
1927.....	2,726,298,717 38	378,464,347 29	2,347,834,370 09	.....	41,896,729 33
1928.....	2,677,137,242 92	380,287,010 00	2,296,850,232 92	.....	50,984,137 17
1929.....	2,647,033,973 32	421,529,268 22	2,225,504,705 10	.....	71,345,527 82
1930.....	2,544,586,410 96	366,822,452 25	2,177,763,958 71	.....	47,740,746 39
				2,421,138,136 66	319,102,819 32

COMPARATIVE STATEMENT OF RECEIPTS FROM
WAR TAX REVENUES

Year	Banks	Trust and Loan Com- panies	Insurance Com- panies	Business Profits	Income Tax	Sales Tax, Tax on Cheques, Transport- ation Tax, etc.	Total War Tax Revenue
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1914-15..						98,056 95	98,056 95
1915-16..	1,300,446 80	324,249 91	459,247 07			1,536,837 94	3,620,781 72
1916-17..	1,114,023 30	202,415 48	419,698 83	12,506,516 72		2,059,583 81	16,302,238 14
1917-18..	1,115,757 65	269,129 08	496,540 55	21,271,083 57		2,227,389 93	25,379,900 78
1918-19..	1,099,764 44	323,340 02	546,113 86	32,970,061 81	9,349,719 80	11,888,508 40	56,177,508 33
1919-20..	1,170,223 45	274,216 28	638,730 76	44,145,184 48	20,263,739 91	15,587,706 70	82,079,801 58
1920-21..	1,257,533 70	293,801 94	807,667 12	40,841,401 25	46,381,824 31	78,803,099 18	168,385,327 50
1921-22..	1,233,697 43	283,994 35	749,958 75	22,815,666 58	78,684,354 80	73,656,488 83	177,484,160 74
1922-23..	1,244,437 14	312,391 39	852,323 12	13,031,461 80	59,711,538 37	106,482,718 08	181,634,874 90
1923-24..	1,236,957 57	303,632 10	857,586 98	4,752,680 89	54,204,027 99	120,676,375 89	182,036,261 42
1924-25..	1,217,753 85	315,314 88	867,901 96	2,704,427 37	56,248,042 82	85,810,717 42	147,164,158 30
1925-26..	1,176,868 95	326,713 80	950,220 85	1,173,448 55	55,571,961 57	98,097,105 81	157,296,319 53
1926-27..	1,174,664 95	335,367 65	947,829 95	710,102 19	47,386,309 22	105,613,160 00	156,167,433 96
1927-28..	1,224,644 46	345,429 85	999,003 34	956,031 44	56,571,047 39	90,222,931 32	150,319,087 80
1928-29..	1,242,398 99	7,640 88	894,863 98	455,232 27	59,422,323 25	83,007,282 78	145,029,742 15
1929-30..	1,408,419 60	.....	74,415 87	173,300 45	69,020,726 23	63,409,143 14	134,086,005 29

APPENDICES

Appendix No. 1

STATEMENT showing the portion of the Funded Debt of Canada payable therein, March 31, 1930, and the annual interest payable thereon

	Bearing 3½ per cent interest	Bearing 4 per cent interest	Bearing 4½ per cent interest	Bearing 5 per cent interest	Bearing 5½ per cent interest	Bearing 6 per cent interest	Total	Maturing
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Act 31, Vic. Chap. 4.....							4,000 00	
Act 53, Vic. Chap. 1.....	66,366 67							
Compensation to Seigneurs.....							66,366 67	Various dates.
Compensation to Townships.....				153 00		12,140 15	12,140 15	
Debenture Stock (School Lands).....				32,620,000 00			32,620,000 00	
War Loan, 1916-31.....				52,931,600 00			52,931,600 00	Oct. 1, 1931.
War Loan, 1917-37.....				90,166,900 00			90,166,900 00	Mar. 1, 1937.
Victory Loan, 1917— Due 1937.....					236,299,800 00		236,299,800 00	Dec. 1, 1937.
Victory Loan, 1918— Due 1933.....					446,659,950 00		446,659,950 00	Nov. 1, 1933.
Victory Loan, 1919— Due 1934.....							511,910,650 00	Nov. 1, 1934.
Renewal Loan, 1922— Due 1932.....							73,325,150 00	Nov. 1, 1932.

[illegible]

Appendix No. 2

STATEMENT showing the portion of the Funded Debt payable in London, March 31, 1930, and the annual interest payable thereon

	At 2½ per cent interest		At 3 per cent interest		At 3½ per cent interest		At 4 per cent interest		Total Sterling		Total Currency		Maturing
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	\$	cts.	
Act 47 Vic., Cap. 3.....					4,822,028	13 3			4,822,028	13 3	23,467,206	27	On giving 6 months' notice or June 1, 1934.
Act 51 Vic., Cap. 2.....			1,658,471	18 11					1,658,471	18 11	8,071,230	16	July 1, 1938.
Acts 54-56 Vic., Cap. 3 and 57-58 Vic., Cap. 1.....			6,000,000	0 0					6,000,000	0 0	29,200,000	00	July 1, 1938.
Act 60-61 Vic., Cap. 3.....									1,004,421	14 2	4,888,185	64	October 1, 1947.
Act 51 Vic., Cap. 32.....	1,004,421	14 2			3,093,700	0 0			3,093,700	0 0	15,056,006	66	July 1, 1938.
Acts 3 Ed. VII, Cap. 71 and 6-7 Ed. VII, Act 51 Vic., Cap. 32.....													
Cap. 7 and 7-8 Ed. VII, Cap. 4, 8-9 Ed. VII, Caps. 35 and 19, 2 Geo. V, Cap. 1.....					28,162,775	11 0			28,162,775	11 0	137,058,841	00	July 1, 1950 (on or after July 1, 1930, on giving 6 months' notice).
Act 3-4 Geo. V, Cap. 3.....							19,300,000	0 0	19,300,000	0 0	93,928,666	66	October 1, 1960 (on or after October 1, 1940, on giving 3 months' notice).
Total interest.....	1,004,421	14 2	7,658,471	18 11	36,078,504	4 3	19,300,000	0 0	64,041,397	17 4	311,668,136	39	
	25,110	10 10	259,754	3 2	1,262,747	12 11	772,000	0 0	2,289,612	6 11	11,142,780	12	

Appendix No. 3

STATEMENT showing the portion of the Funded Debt of Canada payable in New York, March 31, 1930, and the annual interest payable thereon

	Bearing 4½ per cent	Bearing 5 per cent	Total	Maturing
	\$ cts.	\$ cts.	\$ cts.	
Loan of 1915-35.....		874,000 00	874,000 00	Aug. 1, 1935
Public Service Loan, 1916.....		25,000,000 00	25,000,000 00	April 1, 1931
Loan of 1922-52.....		100,000,000 00	100,000,000 00	May 1, 1952
Loan of 1926-36.....	40,000,000 00		40,000,000 00	Feb. 1, 1936
	40,000,000 00	125,874,000 00	165,874,000 00	
Total interest.....	1,800,000 00	6,293,700 00	8,093,700 00	

Appendix No. 4

STATEMENT of the Consolidated Fund of Canada on March 31, 1930

		Dr.	Cr.
	\$ cts.	\$ cts.	\$ cts.
To balance, as per Public Accounts 1928-29.....		595,922,837 06	
To amount of expenditures for 1929-30—			
Ordinary Expenditures..... (details on page 4)		357,779,794 07	
Special Expenditures—			
Adjustment of War Claims..... (details on page 32)		94,995 75	
Reparations—Claims for Compensation.....		6,700,000 00	
Cost of Loan Flotations..... (details on page 32)		17,071 29	
Miscellaneous Charges—			
Civil Service Superannuation Act 1924, Chap. 24, R.S. 1927 (Government contribution to the Fund).....	1,892,590 92		
Halifax Dry Dock—Difference between cost and sale price.....	302,827 43		
Halifax Shipyards, Ltd.—Payments received on ac- count of principal and credited to Casual Revenue	300,000 00		
Ottawa Buildings—Elgin and Sparks Sts.—Salvage of materials, originally credited to Casual Re- venue, transferred to Capital.....	8,311 00		
Railway Grade Crossing Fund—9-10 Geo. V, chap.30	475,055 11		
Railways and Canals, Transfer <i>re</i> outstanding cheques.....	5,297 15		
Outstanding cheques paid during the years 1927-28-29 and 1930, charged to Outstanding Cheques account and for which provision had been transferred to Casual Revenue.....	42,241 33		
War Tax Revenue—Trust and Loan Companies— Refunds in excess of revenue.....	626 34		
		3,026,949 28	
Non-active accounts written off and charged to Con- solidated Fund (Schedule No. 27).....		3,731,535 58	
By amount of revenue for 1929-30—			
Ordinary Revenues (details on page 5).....			441,411,806 18
Special Receipts—			
Adjustment of War Claims—Refunds of previous years' expenditure.....			35,293 78
German Reparations Receipts.....			4,325,274 30
Canada Wheat Board Surplus.....			173,235 53
Exchequer Court Award <i>re</i> S.S. Lord Dufferin.....			6,201 19
Difference in unpaid subscriptions <i>re</i> Victory Loans 1917 and 1918—Unpaid Subscriptions Account.....			474 62
By balance, Consolidated Fund, March 31, 1930.....			521,320,897 43
		967,273,183 03	967,273,183 03

DEPARTMENT OF FINANCE

Appendix No. 5

SINKING FUNDS

To whom paid	Loans	Nature of Investment	Rate of Interest	Amount Purchased	Total
		<i>Canadian Securities</i>			
Sundry persons....	Loan of 1909-34...	Loan of 1947.....	2½	4,331 33	712,037 14
		Loan of 1938.....	3	242,790 74	
		Loan of 1909-34.....	3½	323,529 14	
		Loan of 1930-50.....	3½	141,385 93	
Sundry persons....	Loan of 1930-50...	Loan of 1947.....	2½	4,936 03	1,832,638 76
		Loan of 1938.....	3	220,927 80	
		Loan of 1909-34.....	3½	258,001 74	
		Loan of 1930-50.....	3½	1,236,724 64	
		Loan of 1940-60.....	4	112,048 55	
Sundry persons....	Loan of 1940-60...	Loan of 1947.....	2½	3,893 33	1,054,898 62
		Loan of 1938.....	3	405,436 43	
		Loan of 1909-34.....	3½	282,399 27	
		Loan of 1930-50.....	3½	202,561 32	
		Loan of 1940-60.....	4	160,608 27	
Sundry persons...	War Loan.....	Loan of 1916-31.....	5	412,000 00
				4,011,574 52

Appendix No. 6

STATEMENT showing expenditure on account of Civil Government and Miscellaneous Services by Departments for 1929-30

	Civil Government		Miscellaneous		
	Salaries	Contingencies	Gratuities to Families of Deceased Employees (Statutory)	Unforeseen Expenses	General
	\$	cts.	\$	cts.	\$
The Governor General.....	48,666 66				
The Lieutenant-Governor of—					
Alberta.....	\$ 9,000 00				
British Columbia.....	9,000 00				
Manitoba.....	9,000 00				
New Brunswick.....	9,000 00				
Nova Scotia.....	10,833 32				
Ontario.....	7,000 00				
Prince Edward Island.....	9,916 66				
Quebec.....	9,000 00				
Saskatchewan.....	81,749 98				
Departments—					
Agriculture.....	806,285 91	149,081 23	3,210 00		77,653 63
Archives.....	107,382 43	17,896 99	220 00		
Auditor General's Office.....	358,458 55	42,763 12	736 66		
Civil Service Commission.....	232,062 20	76,000 41			
External Affairs.....	116,752 23	46,745 14	280 00	39,027 05	315 06
Finance.....	417,598 44	39,180 96		13,329 14	234,919 69
" Inspector General of Banks.....	15,000 00	3,615 74			
Fisheries.....	117,635 21	32,649 74	1,160 00		
Office of the Secretary to the Governor General.....	34,335 00	87,463 87			
Immigration and Colonization.....	296,951 95	37,468 61	2,130 00		
Indian Affairs.....	175,926 64	21,373 47	650 00		
Insurance.....	90,060 26	58,985 34			9,924 41
Interior.....	1,448,062 53	89,875 92	3,254 16		31,200 00
Justice.....	270,778 13	39,927 96	7,999 99		73,681 70
Labour.....	241,190 81	28,981 45	420 00		10,000 00
Legislation.....			898 00		19,184 64

Appendix No. 6—Concluded

STATEMENT showing expenditure on account of Civil Government and Miscellaneous Services by Departments for 1929-30—Concluded

	Civil Government		Miscellaneous		
	Salaries	Contingencies	Gratuities to Families of Deceased Employees (Statutory)	Unforeseen Expenses	General
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Departments—Concluded</i>					
Marine.....	415,850 81	55,204 77	4,842 52		
Mines.....	579,581 29	11,918 84	570 00		15,848 00
National Defence.....	743,845 01	69,749 35	1,257 66		742,760 46
National Revenue.....	666,587 19	30,101 51	16,570 98		
Office of the Prime Minister.....	25,409 50				
Pensions and National Health.....	201,647 70	68,546 74	3,253 49		95,000 00
Post Office.....	1,317,448 57	187,307 59	15,626 66		
Privy Council.....	49,164 89	5,490 76		3,379 67	
Public Printing and Stationery.....	80,345 00	12,184 99	840 68		3,000 00
Public Works.....	663,789 10	84,544 25	9,229 43		58,139 99
Railways and Canals.....	274,931 16	44,931 80	3,990 51		500 00
Royal Canadian Mounted Police.....	37,660 00	8,465 67			47,127 99
Secretary of State.....	339,205 21	67,575 89			
Trade and Commerce.....	551,804 91	33,810 49	3,220 00		2,622,120 47
Miscellaneous, per schedule No. 23, Page 31.....					
	10,806,167 27	1,451,842 10	80,360 74	55,735 86	4,041,385 98
		10,806,167 27			
		12,258,009 37			
Total expenditure chargeable to Civil Government.....					55,735 86
					80,360 74
Total expenditure chargeable to Miscellaneous Services.....					4,177,482 58

Appendix No. 7

INTEREST ON PUBLIC DEBT

To Whom Paid	Description	Time for which Interest was paid	Date to which Interest was paid	Rate of Interest	Amount of Principal	—	Interest Paid	Total
				p.c.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	FUNDED							
	Debentures and Inscribed Stock							
	<i>Payable in London</i>							
Bank of Montreal.....	Loan of 1884 Unguaranteed.....	1 year.....	Dec. 1, 1929..	3½	23,467,206 27	.....	821,352 20	
"	" 1888	1 ".....	Jan. 1, 1930..	3	8,071,230 16	.....	242,136 90	
"	" 1892	1 ".....	Jan. 1, 1930..	3	18,250,000 00	.....	547,500 00	
"	" 1894	1 ".....	Jan. 1, 1930..	3	10,950,000 00	.....	328,500 00	
"	" 1897	1 ".....	April 1, 1930..	2½	4,888,185 64	.....	122,204 62	
"	" 1930-50	1 ".....	Jan. 1, 1930..	3½	137,058,841 00	.....	4,797,039 42	
"	" 1940-60	1 ".....	April 1, 1930..	4	93,926,666 66	.....	3,757,066 66	
"	Canadian Pacific Ry. Land Grant Loan Unguaranteed.....	1 ".....	Jan. 1, 1930..	3½	15,056,006 66	.....	526,960 22	11,142,780 02
	<i>Payable in Canada</i>							
Sundry Persons.....	Stock A.....	1 year.....	April 1, 1930..	6	4,000 00	.....	240 00	
"	" B.....	1 ".....	May 1, 1929	3½	19,400 00	.....	339 50	
"	" B.....	1 ".....	Nov. 1, 1929..	3½	18,400 00	.....	322 00	
"	" B.....	Various.....	.....	3½	.....	.....	28 46	
"	" C.....	1 year.....	Nov. 1, 1929..	3½	48,666 67	.....	689 96	
Hon. Provincial Treasurers	Debenture Stock (School Lands)	1 ".....	April 1, 1930..	5	* 9,243,000 00	459,175 00		
Alberta.....	"	1 ".....	April 1, 1930..	5	* 5,893,000 00	294,525 00		
Manitoba.....	"	1 ".....	April 1, 1930..	5	* 17,484,000 00	853,225 00		
Saskatchewan.....	"	1 ".....	.....	.....	.....	.....	1,606,925 00	
Sundry Persons.....	Compensation to Seigneurs.....	1 year.....	Jan. 1, 1930..	6	12,140 15	.....	604 64	
"	Compensation to Townships.....	1 ".....	Jan. 1, 1930..	5	153 00	.....	7 64	
"	War Loan 1916-31.....	1 ".....	April 1, 1930..	5	52,931,600 00	.....	2,646,577 50	
"	" 1917-37.....	1 ".....	Mar. 1, 1930..	5	90,166,900 00	.....	4,508,340 00	
"	Victory Loan 1917.....	1 ".....	Dec. 1, 1929..	5½	236,299,800 00	.....	12,997,092 29	
"	" 1918	1 ".....	Nov. 1, 1929..	5½	446,639,950 00	.....	24,565,384 77	
"	" 1919	1 ".....	Nov. 1, 1929..	5½	511,910,650 00	.....	28,155,095 84	
"	Renewal Loan 1922.....	1 ".....	Nov. 1, 1929..	5½	73,325,150 00	.....	4,032,886 77	
	Carried forward.....						78,515,547 75	11,142,780 02

Appendix No. 7—Concluded

INTEREST ON PUBLIC DEBT—Concluded

To Whom Paid	Description	Time for which Interest was paid	Date to which Interest was paid	Rate of Interest	Amount of Principal	—	Interest Paid	Total
				p.c.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	Brought forward.....						78,515,547 75	11,142,780 02
	FUNDED— <i>Payable in Canada</i> — Concluded							
Sundry Persons.....	Refunding Loan 1923.....	1 year.....	Oct. 15, 1929.....	5	147,001,100 00		7,350,055 00	
"	" 1924.....	1 ".....	Oct. 15, 1929.....	4½	50,000,000 00		2,250,000 00	
"	" 1925-40.....	1 ".....	Mar. 1, 1930.....	4½	75,000,000 00		3,375,000 00	
"	" 1926-46.....	1 ".....	Feb. 1, 1930.....	4½	* 45,000,000 00		2,914,428 09	
"	Three Year Notes, 1927.....	1 ".....	Dec. 1, 1929.....	4	45,000,000 00		1,800,000 00	
	Less—War Loan 1915-25—Adjust- ment.....						96,205,030 84	
	<i>Payable in New York</i>						850 00	96,204,180 84
Sundry Persons.....	Bond Loan 1915-35.....	1 year.....	Feb. 1, 1930.....	5	874,000 00		43,700 00	
"	Public Service Loan 1916.....	1 ".....	April 1, 1930.....	5	25,000,000 00		1,250,000 00	
"	Bond Loan 1919-29.....	1 ".....	Aug. 1, 1929.....	5½	60,000,000 00		1,500,889 50	
"	Loan of 1922-52.....	1 ".....	Nov. 1, 1929.....	5	100,000,000 00		5,000,000 00	
"	Ten Year Notes, 1926-36.....	1 ".....	Feb. 1, 1930.....	4½	40,000,000 00		1,800,000 00	
								9,594,589 50
	UNFUNDED							
	<i>Post Office Savings Bank</i>							
Sundry Persons.....	Post Office Savings Bank.....	1 year.....	April 1, 1930.....	3	* 26,086,036 03			784,581 89
	<i>Trust Funds</i>							
Indian Funds.....	Trust Funds.....	1 year.....	April 1, 1930.....	6	1,089,844 37	65,390 65		
"	"	1 ".....	April 1, 1930.....	5	12,539,559 37	626,977 97		692,368 62

Hon. Prov. Treas., Ontario	Trust Fund, Proportion of Common School Fund.....	1 year.....	Jan. 1, 1930..	5	.....	73,722 23	.....	133,058 60
Hon. Prov. Treas., Quebec	Trust Fund, Proportion of Common School Fund.....	1 ".....	Jan. 1, 1930..	5	.....	59,336 37	.....
Hon. Prov. Treas., Alberta	Alberta School Lands.....	1 ".....	April 1, 1930..	5	*	257,822 68	.....
Hon. Prov. Treas., Manitoba	Manitoba School Lands.....	1 ".....	April 1, 1930..	5	*	12,584 82	87 18	
Hon. Prov. Treas., Saskatchewan	Saskatchewan School Lands.....	1 ".....	April 1, 1930..	5	*	240,632 89	23,523 80	
Land Assurance Fund.....	Trust Fund.....	1 ".....	April 1, 1930..	3	*	12,131 59	.....	36,753 55
Sundry Persons.....	Contractors' Securities.....	1 ".....	April 1, 1930..	3	*	2,060,933 32	.....	352 38
"	Decayed Pilots Pension Fund.....	1 ".....	April 1, 1930..	3	*	8,211 52	.....	49,242 29
"	Halifax Pilots Pension Fund.....	1 ".....	April 1, 1930..	3	*	7,510 09	.....	180 43
"	St. John Pilots Pension Fund.....	1 ".....	April 1, 1930..	3	*	3,855 28	.....	102 27
"	Sydney Pilots Pension Fund.....	1 ".....	April 1, 1930..	3	*	7,837 05	.....	6 59
"	Burrard Drydock Pontoons.....	1 ".....	April 1, 1930..	3	*	12,746 18	.....	118 46
Militia Council.....	Strathcona Trust Fund.....	1 ".....	Nov. 12, 1929..	4	*	300,000 00	12,000 00	321 40
		1 ".....	Nov. 14, 1929..	4	*	200,000 00	8,000 00	
Regimental Funds.....	Trust Fund.....	1 ".....	April 1, 1930..	3	*	5,312 42	.....	20,000 00
								154 20
	Bank Circulation Redemption Fund							932,638 79
Sundry Banks.....	Bank Circulation Redemption Fund.....	1 year.....	July 1, 1929..	3	*	6,363,361 59	.....	182,796 55
	Insurance and Superannuation Funds							
Sundry Persons.....	Civil Service Insurance.....	1 year.....	April 1, 1930..	6	*	5,719,709 35	.....	312,102 00
"	Civil Service Superannuation Act, 1893, Now Chap. 17, R.S. 1906—Fund No. 2.....	1 ".....	April 1, 1930..	6	*	2,038,256 00	.....	116,664 21
"	Civil Service Superannuation Act, 1924, now Chap. 24, R.S. 1927—Fund No. 5.....	1 ".....	April 1, 1930..	4	*	28,332,923 40	.....	984,843 93
"	Government Annuities.....	1 ".....	April 1, 1930..	4	*	20,612,250 28	.....	757,392 73
"	Retirement Fund.....	1 ".....	Jan. 1, 1930..	5	*	5,751,035 25	.....	266,882 72
"	Returned Soldiers Insurance Fund.....	1 ".....	April 1, 1930..	4	*	7,968,686 26	.....	286,740 03
								2,734,625 62
								121,566,213 21

*Balance March 31, 1930.

DEPARTMENT OF FINANCE

Appendix No. 8

CHARGES OF MANAGEMENT

To Whom Paid	Service	\$	cts.	\$	cts.
OFFICES OF THE ASSISTANT RECEIVERS GENERAL					
Assistant Receiver General's Office, Calgary, Alta.					
G. S. Nicol.....	Salary April 1, 1929 to March 31, 1930.....	3,240	00		
Jas. Parry.....	" 1, 1929 " 31, 1930.....	2,460	00		
R. N. Genge.....	" 1, 1929 " 31, 1930.....	1,755	00		
R. T. Waymark.....	" 1, 1929 " 31, 1930.....	1,440	00		
A. Sutherland.....	" 1, 1929 " 31, 1930.....	990	00		
S. M. Vyse.....	Salary July 12, 1929 to Aug. 4, 1929.....	50	81	9,935	81
Contingencies, including Printing and Stationery				352	81
Assistant Receiver General's Office, Charlottetown, P.E.I.					
P. Pope.....	Salary April 1, 1929 to March 31, 1930.....	2,900	00		
D. A. McKinnon.....	" 1, 1929 " 31, 1930.....	1,980	00		
H. S. Stewart.....	" 1, 1929 " 31, 1930.....	1,620	00		
H. T. Currie.....	" 1, 1929 " 31, 1930.....	1,380	00		
Contingencies, including Printing and Stationery..				243	52
Assistant Receiver General's Office, Halifax, N.S.					
A. C. Johnston.....	Salary April 1, 1929 to March 31, 1930.....	3,240	00		
R. W. Congdon.....	" 1, 1929 " 31, 1930.....	2,460	00		
F. J. Wilks.....	" 1, 1929 " 31, 1930.....	1,920	00		
G. D. Hamlin.....	" 1, 1929 " 31, 1930.....	1,620	00		
J. H. Webber.....	" 1, 1929 " 31, 1930.....	1,335	00		
A. M. Burgoyne.....	" 1, 1929 " 31, 1930.....	1,380	00	12,038	38
P. G. Shore.....	Salary Aug. 12, 1929 to Sept. 15, 1929.....	83	38		
Contingencies, including Printing and Stationery..				379	96
Assistant Receiver General's Office, Montreal, Que.					
Montreal City and District Savings Bank, Montreal, Que.	Amount paid to this institution for acting as Assistant Receiver General for year ended March 31, 1930.....	20,000	00		
Contingencies, including Printing and Stationery..						884	86
Assistant Receiver General's Office, Regina, Sask.					
W. Winsby.....	Salary April 1, 1929 to March 31, 1930.....	3,240	00		
E. P. Blyth.....	" 1, 1929 " 31, 1930.....	2,460	00		
G. M. Bury.....	" 1, 1929 " 31, 1930.....	1,875	00		
M. Beaton.....	Salary July 15, 1929 to Aug. 4, 1929.....	48	39		
G. Colhoun.....	Salary April 1, 1929 to March 31, 1930.....	810	00		
				8,433	39
Contingencies, including Printing and Stationery..				386	44
Carried forward.....					
					60,535 17

Appendix No. 8—Continued

CHARGES OF MANAGEMENT—Continued

To Whom Paid	Service	\$	cts.	\$	cts.
	Brought forward.....			60,535	17
	<i>Assistant Receiver General's Office, St. John, N.B.</i>				
J. E. Wilson.....	Salary April 1, 1929 to July 1, 1929.....		810 00		
E. H. Cameron.....	" " 1, 1929 to March 31, 1930.....		2,460 00		
G. T. Corbett.....	" " 1, 1929 " 31, 1930.....		1,755 00		
H. W. Thompson.....	" " 1, 1929 " 31, 1930.....		1,380 00		
H. P. Humphrey.....	" " 1, 1929 " 31, 1930.....		1,155 00		
F. J. Ord.....	" " 1, 1929 to Oct. 17, 1929.....		621 61		
G. M. Sage.....	Salary Aug. 26, 1929 to March 31, 1930.....		647 42		
			8,829 03		
	Contingencies, including Printing and Stationery..		286 44	9,115	47
	<i>Assistant Receiver General's Office, Toronto, Ont.</i>				
K. Frederickson.....	Salary April 1, 1929 to March 31, 1930.....		4,200 00		
S. A. Staden.....	" " 1, 1929 " 31, 1930.....		3,240 00		
G. A. Ivey.....	" " 1, 1929 " 31, 1930.....		2,070 00		
J. J. Hannon.....	" " 1, 1929 " 31, 1930.....		1,965 00		
F. E. Ruhl.....	" " 1, 1929 " 31, 1930.....		1,620 00		
A. B. Hounsom.....	" " 1, 1929 " 31, 1930.....		1,380 00		
M. A. M. Livingstone.....	" " 1, 1929 " 31, 1930.....		1,515 00		
Alf. Maude.....	" " 1, 1929 " 31, 1930.....		1,515 00		
J. H. O'Neill.....	" " 1, 1929 " 31, 1930.....		1,170 00		
F. Goodman.....	" " 1, 1929 " 31, 1930.....		1,170 00		
H. R. Roberts.....	" " 1, 1929 " 31, 1930.....		1,140 00		
P. MacLeod.....	" " 1, 1929 " 31, 1930.....		1,080 00		
R. J. Lillie.....	" " 1, 1929 " 31, 1930.....		1,275 00		
B. A. Thompson.....	" " 1, 1929 to Oct. 28, 1929.....		412 26		
R. E. Duncan.....	Salary Jan. 16, 1930 to March 31, 1930.....		147 75		
A. W. Jones.....	Salary April 1, 1929 " 31, 1930.....		720 00		
S. Lachoski.....	" " 1, 1929 " 31, 1930.....		810 00		
O. M. Lorimer.....	Salary Nov. 1, 1929 to Nov. 19, 1929.....		36 00		
G. Dowling.....	Salary April 1, 1929 to March 31, 1930.....		1,080 00		
W. H. Pyatt.....	" " 1, 1929 " 31, 1930.....		1,260 00		
Jas. March.....					
			29,321 01		
	Contingencies, including Printing and Stationery..		1,056 95	30,377	96
	<i>Assistant Receiver General's Office, Victoria, B.C.</i>				
D. B. McConnan.....	Salary April 1, 1929 to March 31, 1930.....		3,240 00		
Geo. Watts.....	" " 1, 1929 " 31, 1930.....		2,250 00		
G. H. Llewellyn.....	" " 1, 1929 " 31, 1930.....		1,755 00		
A. W. Webb.....	" " 1, 1929 " 31, 1930.....		1,380 00		
W. J. Mullin.....	" " 1, 1929 " 31, 1930.....		1,170 00		
E. Dumbleton.....	Salary Sept. 1, 1929 to Sept. 24, 1929.....		57 50		
V. M. Lawson.....	Salary April 1, 1929 to March 31, 1930.....		1,095 00		
			10,947 50		
	Contingencies, including Printing and Stationery..		549 89	11,497	39
	<i>Assistant Receiver General's Office, Winnipeg, Man.</i>				
Wm. Morton.....	Salary April 1, 1929 to March 31, 1930.....		3,660 00		
S. J. Perkins.....	" " 1, 1929 " 31, 1930.....		2,700 00		
T. Knight.....	" " 1, 1929 " 31, 1930.....		1,920 00		
F. D. Ross.....	" " 1, 1929 " 31, 1930.....		1,620 00		
F. George.....	Salary July 4, 1929 " 31, 1930.....		801 29		
			10,701 29	111,525	99
	Carried forward.....				

Appendix No. 8—Continued

CHARGES OF MANAGEMENT—Continued

To Whom Paid	Service	\$	cts.	\$	cts.
	Brought forward.....	10,701	29	111,525	99
	<i>Assistant Receiver General's Office Winnipeg, Man.</i> —Concluded				
M. E. Bowyer.....	Salary April 1, 1929 to March 31, 1930.....	1,200	00		
W. D. T. Shortreed.....	" 1, 1929 " 31, 1930.....	1,380	00		
A. A. Gugin.....	" 1, 1929 to June 22, 1929.....	243	00		
		13,524	29		
	Contingencies, including Printing and Stationery..	556	39	14,080	68
				125,606	67
	<i>Recapitulation</i>				
	Salaries, Offices of the Assistant Receivers General.	100,909	41		
	Payments to the Montreal City and District Savings Bank, Montreal, Quebec, for acting as Assistant Receiver General at Montreal, and for bond transfer work.....	20,000	00		
	Contingencies, including Printing and Stationery..	4,697	26	125,606	67
	<i>English Bill Stamps, Postage, etc.</i>				
Bank of Montreal, London, England.....	Bill Stamps.....	1,385	44		
	Postage.....	844	65		
	Composition of Stamp Duty.....	197	10		
		2,427	19		
	LESS—Sundry fees for issuing stock certificates to bearer.....	485	20	1,941	99
	<i>Commission for Payment of Interest on Public Debt, etc.</i>				
Bank of Montreal, London, England.....	Commission and brokerage on sinking funds.....	9,002	11		
" ".....	For services as fiscal agents in London, England, for the year ended Dec. 31, 1929, at rate of £150 per million of debt.....	46,750	22		
Sundry Banks, New York.	Commission for cashing Dominion of Canada coupons and registered interest.....	16,048	02		
Bank of Montreal, New York.	Fees for registration of Bonds domiciled in New York.....	5,750	00		
Sundry Banks.....	$\frac{1}{2}$ of one per cent commission for cashing Dominion of Canada coupons.....	11,839	60		
P. S. Ross & Sons.....	Auditing.....	37,000	00	126,389	95
	<i>Printing Dominion Notes, etc.</i>				
Canadian Bank Note Co., Ltd., Ottawa, Ont.....	Printing Dominion Notes, including Sales Tax....	580,236	05		
" ".....	Ink, etc.....	170	75		
" ".....	Labourers services.....	1,952	18		
" ".....	To rebuild paper cutter.....	693	20		
Ault and Wiborg Co., Toronto, Ont.....	Rollers for printing press.....	111	50		
Ayers, Ltd., Lachute Mills, Quebec.....	Groundwood felt.....	175	20		
Barrett Bros.....	Lumber.....	2	20		
Imperial Oil Co., Ltd., Toronto, Ont.....	Oil, gasoline, etc.....	7	45		
Laurentian Stone Co., Ltd., Ottawa, Ont.....	Lime.....	17	70		
Mahoney & Rich, Ltd., Ottawa, Ont.....	Cartage and freight.....	2	80		
	Carried forward.....	583,369	03	253,938	61

CHARGES OF MANAGEMENT—Continued

To Whom Paid	Service	\$	cts.	\$	cts.
	Brought forward.....	583,369	03	253,938	61
	<i>Printing Dominion Notes, etc.—Concluded</i>				
Miller & Richard, Toronto, Ont.....	Parts for printing press.....	78	19		
Ottawa Drug Co., Ltd., Ottawa, Ont.....	Soda ash.....	336	26		
Pritchard-Andrews Co., Ltd., Ottawa, Ont.....	Steel dies.....	8	16		
J. S. Robertson, Montreal, Que.....	Cylinder press rollers.....	52	89		
Simonds, Canada Saw Co., Ltd.....	Paper knives, etc.....	31	32		
Waterous, Ltd.....	Shower pipe.....	30	00		
Wright Builders Supply, Ltd.....	Lime.....	10	20		
F. Rowe.....	Salary April 1, 1929 to Mar. 31, 1930.....	1,680	00		
P. S. Harper.....	" 1, 1929 to Mar. 31, 1930.....	1,200	00		
E. J. Theobalds.....	" 1, 1929 to Mar. 31, 1930.....	1,560	00		
B. Becker.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
D. Campbell.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
F. Jones.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
M. B. Little.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
A. B. Little.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
M. Paget.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
D. M. Racine.....	" 1, 1929 to Mar. 31, 1930 (less 11 days).....	815	16		
B. Flesher.....	" 1, 1929 to Mar. 31, 1930 (less 2 days).....	835	48		
M. Boily.....	" 1, 1929 to Mar. 31, 1930 (less 5 days).....	828	71		
D. A. Brown.....	" 1, 1929 to Mar. 31, 1930.....	840	00		
				596,715	40
	<i>Printing, Advertising, Express, etc.</i>				
Bank of Montreal, New York.....	Assay office charges.....	52	09		
" ".....	Packing cases.....	30	20		
Bank of Montreal, London, England.....	$\frac{1}{2}$ of one per cent commission for handling Roumanian and Greek coupons.....	818	86		
" ".....	Advertising.....	418	54		
" ".....	Printing and Stationery.....	275	81		
" ".....	Express.....	3	63		
" ".....	Freight.....	1	53		
" ".....	Cables.....	4	01		
Bank of Montreal, Ottawa..	Postage and registration on bonds.....	86	54		
Department of Public Printing and Stationery, Ottawa, Ont.....	Printing and Stationery.....	11,117	73		
Sundry Express Companies.	Express..... \$ 70,790 69				
	Less refunds..... 639 31			70,151	38
Bank of Montreal.....	Insurance..... 23 55				
Courtney, Sears & Brennan.	" 342 35				
Greene & Robertson.....	" 5,347 32				
Provincial Treasurer, Toronto.....	" 131 20				
Registrar, Can. Nat. Rys..	" 2 50				
	5,846 92				
	Less refunds..... 1,361 22			4,485	70
Capital Motors, Ltd., Ottawa.....	Franklin limousine, \$4,773.50, less allowance on used car, \$1,000.....	3,773	50		
F. Berryman.....	Services and travelling expenses.....	700	45		
Collector of Customs.....	Duty and Sales Tax.....	1	47		
Dudley Lock Corporation, 26 North Franklin St., Chicago.....	Locks.....	10	47		
Canadian Bank Note Co., Ltd.....	Sheets for loose-leaf binder.....	15	30		
	Carried forward.....	91,947	21	80,654	01

Appendix No. 8—Concluded

CHARGES OF MANAGEMENT—Concluded

To Whom Paid	Service	\$ cts.	\$ cts.
	Brought forward.....	91,947 21	850,654 01
	<i>Printing, Advertising, Express, etc.—Concluded</i>		
Grant, Holden, Graham, Ltd., Ottawa, Ont.....	Coin bags.....	232 05	
A. E. Hicks.....	Inspecting time locks.....	22 00	
J. A. Mayer, Montreal, Que.	Coin bag seals.....	130 00	
O. B. McClintock Co., Min- neapolis, Minn.....	Inspecting burglar alarm system.....	100 00	
B. Mullin.....	Copy of evidence.....	31 20	
Ottawa Typewriter Co., Ltd., Ottawa, Ont.....	Odhner Calculator.....	225 00	
New York Central Rail- road, New York.....	Freight and cartage.....	17 71	
Porter Safety Seal Co., Chicago, Ill.....	Seals.....	62 50	
Pritchard-Andrews Co., Ltd., Ottawa, Ont.....	Steel and rubber stamps.....	7 50	
Registrar, C.N. Rys.....	Registration of debenture stock.....	3 53	
McFarlane-Douglas Co., Ltd., Ottawa, Ont.....	Metal box.....	9 85	
Steel Equipment Co., Ltd., Ottawa, Ont.....	Clark swivel caster and rubber tires for truck.....	22 44	
Thornton & Truman, Ot- tawa, Ont.....	Repairs, etc.....	624 20	
L. E. Waterman Co., Ltd., Montreal, Que.....	Repairs to fountain pens.....	9 04	
E. C. Young, Ottawa, Ont.	Stenographic reporting services.....	307 20	
Sundry persons.....	Office contingencies, Currency Branch.....	19 55	
Sundry persons.....	Maintenance, repairs, etc., to Departmental car and truck.....	1,941 17	
E. C. Campbell.....	Travelling expenses.....	49 85	
R. W. Congdon.....	".....	227 82	
H. T. Currie.....	".....	50 40	
R. C. Herdman.....	".....	48 90	
S. L. Livingstone.....	".....	49 40	
J. W. McFarlane.....	".....	144 30	
S. P. McCavour.....	".....	164 50	
V. D. McElary.....	".....	73 90	
B. G. McIntyre.....	".....	105 80	
J. P. Melvin.....	".....	854 65	
P. Pope.....	".....	100 72	
A. Schryer.....	".....	80 05	
H. W. Thompson.....	".....	167 00	
W. Winsby.....	".....	168 65	
P. B. Wooster.....	".....	755 65	
W. A. Bradley (chauffeur).	Salary April 1, 1929 to March 31, 1930.....	1,770 00	
C. E. Clarke (chauffeur)...	" 1, 1929 " 31, 1930.....	1,620 00	
L. Lussier (chauffeur).....	Salary Aug. 1, 1929 " 31, 1930.....	960 00	
			103,103 74
	<i>Statutory Currency Act, 1910</i>		
A. Stansfield.....	Trial of Pyx.....	180 65	
G. J. Mackay.....	".....	177 80	
J. W. Bain.....	".....	191 15	
Clerical assistance.....	".....	30 55	
			580 15
	<i>Salary and contingencies of Walter Duncan, Special Investigating Officer under the direction of the Minister of Finance</i>		
Walter Duncan.....	Salary April 1, 1929 to March 31, 1930.....	3,670 00	
	Contingencies.....	1,860 05	
			5,530 05
	<i>Clerical assistance in connection with the transfer and registration of Bonds</i>		
Sundry persons.....	Clerical assistance.....		55,898 50
			1,015,766 45

Appendix No. 9

PREMIUM, DISCOUNT AND EXCHANGE EXPENDITURE

—	Rate	Amount Purchased		Amount of Premium		Total	
		\$	cts.	\$	cts.	\$	cts.
Premium on New York funds purchased.....	$\frac{1}{2}$	8,000,000	00	40,000	00		
	$1\frac{1}{8}$	2,600,000	00	27,625	00		
	$1\frac{5}{8}$	100,000	00	1,156	25		
	$1\frac{3}{8}$	300,000	00	4,125	00		
						72,906	25
Discount and Exchange on sundry items.....						69	28
						72,975	53

Appendix No. 10

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 1	\$ cts.		SUPERANNUATION No. 1	\$ cts.
	Civil Service Superannuation and Retirement Act, 1870, Chap. 17, R.S. 1906				
1912	Abbott, S. A.	1,601 05	1916	Brennan, P. J.	1,179 72
1922	Aikens, J.	1,779 47	1921	Brett, Wm.	1,054 80
1922	Ainsborough, Thos.	909 96	1915	Briegal, Frederick	1,749 96
1921	Allan, F. J.	2,375 33	1916	Brough, James S.	1,662 48
1918	Allen, Geo. G.	808 92	1917	Broughton, Jas. L.	1,435 56
1904	Allen, H. S.	694 32	1919	Brown, J. H.	1,697 40
1918	Allwell, R. J.	525 84	1904	Buckley, Jas.	339 96
1920	Almon, A. W.	1,213 29	*1921	Bull, G. H.	98 77
1910	Ami, Henry	1,182 72	1913	Burrows, Wm.	481 92
1922	Anderson, F. C.	1,559 04	1910	Bussell, John	309 00
1895	Archambault, Marie P.	237 96	1921	Butler, J.	1,042 20
1924	Archambault, R.	909 96	1918	Butler, R. J.	1,238 08
1904	Archer, Wm.	388 56	1922	Cairns, A. W.	2,746 20
1905	Ardagh, Henry	930 00	1901	Caldwell, Thos.	522 00
1923	Armstrong, Thos.	960 00	1916	Cameron, Alex. McK.	481 55
1923	Ashby, A. H.	909 96	1921	Campbell, Jos. H.	951 00
1922	Ashe, Ed.	855 48	1921	Caron, A. E.	1,950 66
1922	Ashmead, H. A.	840 00	1917	Carrier, Jos. E.	979 92
1915	Asselin, J. E.	890 64	1911	Carty, Wm.	249 55
1922	Ayotte, J. E.	454 92	1911	Chamberlain, A. J.	504 00
1911	Backhouse, Wm.	360 00	1922	Chamberlain, H.	680 00
1897	Bailey, Geo. O.	648 00	*1907	Chase, Isaac	840 00
1911	Baldwin, H. A.	818 40	1923	Cheyne, A. J.	1,092 00
1922	Ball, Thos.	946 08	1925	Chillas, J. P.	2,272 32
1920	Ballantine, Elizabeth	1,367 28	1910	Chubbuck, C. E. D.	1,373 64
1923	Barber, K. A.	2,940 00	*1918	Churchill, James	140 00
1924	Barcelo, Edouard	2,239 92	1926	Clarke, Chas. F.	1,113 00
1917	Barrett, John K.	979 92	1921	Clarke, Geo.	583 32
1920	Bathurst, Jas. W.	399 98	1925	Clark, O. S.	1,020 72
1904	Bayly, L. D.	902 22	1924	Cochrane, J. B.	998 80
1920	Beahen, Denis	408 47	1905	Cochrane, W. C.	361 08
1908	Beale, Thomas	2,215 56	1920	Code, W. A.	1,411 56
1923	Beard, F.	1,260 00	1913	Coleman, Charles	726 00
1923	Beatty, A.	432 00	1918	Coleman, Lilian	624 00
1906	Beaudry, P. A. L. A.	2,788 32	1926	Conway, W. A.	1,875 96
1922	Beddoe, C. H.	345 32	1924	Cook, M. E.	1,369 56
*1924	Beers, J. M.	314 64	1921	Cooper, W. J.	1,450 80
1903	Belford, Ethel	233 32	1916	Corbel, Ed.	450 72
*1922	Bell, John	367 50	1929	Corcoran, John	1,165 26
1913	Bellerive, George	985 80	1923	Courtman, John	1,008 00
1904	Benjamin, E. H.	540 00	1906	Cowan, E.	387 00
1897	Bennett, J. H.	2,102 63	1923	Cox, R. H.	1,176 00
1922	Bennett, W. E.	334 32	1924	Cox, R. S.	1,266 96
*1915	Bérubé, Pierre A.	2,344 92	1925	Crabbe, O. R.	1,063 92
1919	Binks, Geo. J.	1,958 04	1926	Crate, A. E.	1,467 60
1923	Bishop, R. S.	2,484 96	1920	Creighton, H. S.	1,119 96
1914	Blackadar, A. K.	689 40	*1928	Creighton, R. R.	196 00
1929	Blaikie, J. A.	2,085 36	1909	Crisp, A. C.	840 00
1920	Blair, H. C.	163 33	1918	Crowe, Wm. J.	747 96
*1920	Bliss, T. A. D.	152 04	1920	Cunningham, F. H.	2,800 00
1905	Blomfield, Geo. H.	1,642 08	1910	Curran, Alfred	1,042 56
1922	Blondeau, D. S.	1,292 61	*1918	Cushing, James J.	516 40
1922	Boddy, J. S.	1,336 92	1924	Cushing, John	882 00
1925	Bolger, M. K.	1,936 56	1922	Cuthbert, W. J.	1,051 80
1923	Bollard, J. H.	1,119 96	1906	Dale, L. E.	329 28
1921	Booth, Geo.	2,077 83	1922	D'Aoust, Omer	951 96
1918	Borden, J. W.	1,893 84	1919	Davidson, J. J.	1,188 00
1921	Bouteiller, G. A.	3,733 33	1923	Davidson, L. D.	665 64
1920	Boville, T. C.	186 65	1924	Deacon, J. L.	1,386 00
*1908	Bowser, Francis	189 24	1914	Delaney, E. J.	939 12
1897	Boys, T. R.	260 88	1911	Delisle, Joseph	1,013 28
1905	Bradley, James	2,190 96	1914	De Long, Isaiah P. E.	430 68
1922	Bray, S.		1923	Desaulniers, D. L.	2,656 44
			1924	Desjardins, A. W.	1,191 96
			1918	Devinney, F. J.	951 96
			1913	Dingman, N. J.	1,890 00
			1900	Dodds, E. W. K.	324 00

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 1	\$ cts.		SUPERANNUATION No. 1	\$ cts.
1920	Dodds, John.....	1,270 80	1905	Higgins, Richard.....	228 84
1909	Doller, W. J.....	526 20	1920	Hill, W. B. A.....	927 96
1917	Doray, J. L. E.....	979 92	1898	Hopkirk, J. E.....	699 96
1913	Doucet, Eugène.....	1,032 50	1923	House, W. H.....	1,287 96
1924	Doyle, Mary C.....	1,755 60	*1887	Howe, Sydenham.....	202 66
1920	Driver, Thos.....	1,337 76	1897	Hudon, A.....	399 96
1918	Drummond, Robt. F.....	1,057 44	1923	Huggan, Wm. T.....	1,973 28
1922	Duboulay, A.....	841 44	*1904	Hunt, William Josiah.....	187 81
1923	Duplessis, L. J. T. R.....	2,013 60	1921	Hutty, R. H. G.....	1,042 20
1927	Eagleson, John.....	1,218 00	*1921	Iler, B.....	163 33
1917	Eagleson, Wm. H.....	1,470 00	1920	Isaacson, H. N.....	1,559 76
1919	Eaton, Wm. P.....	979 92	1922	Jackson, E. S.....	794 64
1922	Eckhardt, W. H. A.....	1,764 00	1901	Jackson, J. A.....	340 00
1925	Edwards, E. T.....	1,150 32	1922	James, T. C.....	1,609 92
1922	Elbourne, Geo.....	1,035 14	1925	Johnson, B. E.....	559 92
1914	Ellis, Rachel G.....	528 00	1927	Johnson, J. E.....	2,113 92
1905	Farley, J. F.....	727 92	1923	Johnstone, G.....	1,609 92
1921	Ferguson, Alex.....	688 32	*1922	Johnstone, W. J.....	2,099 97
1912	Finnegan, Edward.....	549 96	1897	Jones, Allan.....	1,119 96
1922	Fleming, J. B.....	1,959 96	*1914	Jones, C. J.....	612 48
1923	Florence, C.....	1,050 00	1913	Jones, James G.....	473 52
1909	Flynn, D. J.....	680 52	1920	Jones, L. K.....	2,799 96
*1926	Flynn, John.....	49 00	1921	Jones, R.....	1,568 76
1916	Flynn, Wm.....	1,096 56	1918	Jones, W. E. C.....	951 96
1922	Forest, S.....	921 60	1919	Just, C. F.....	2,799 96
1920	Fortier, L. M.....	1,903 92	1922	Kavanagh, C. E.....	1,991 16
1924	Foster, A. B.....	2,152 50	1923	Keating, C. J.....	1,848 00
1924	Foster, Jas.....	831 60	1922	Kemp, A. E.....	1,854 96
1916	Frank, E.....	638 52	1922	Ketchum, F. E.....	1,092 00
1922	Frazer, A. J.....	1,890 00	1922	Ketchum, W. Q.....	962 50
1922	Frazer, Peter.....	1,152 00	1922	Kimber, W.....	802 01
1916	French, J. L.....	867 96	1917	King, Richard M.....	1,189 92
1922	Frigon, J. A.....	2,625 00	1912	Kinney, John.....	610 68
1903	Gabriel, J. McN.....	576 00	1918	Kirkpatrick, John A.....	1,260 00
1899	Galbraith, J.....	197 52	*1918	Kirwan, Philip T.....	122 50
1925	Gaudry, H. D.....	1,138 56	1920	Landor, A.....	801 08
1909	Gauthier, Avila.....	204 00	1922	Lane, H. B. S.....	1,960 00
1912	Gauthier, Pierre.....	476 16	1921	Langstone, W. H.....	1,075 44
1923	Gendreau, A. B.....	1,176 00	1922	Lantier, A. A.....	2,164 56
1915	Gilkie, H. A.....	454 92	1916	Lapointe, T. H.....	979 92
1916	Gillespie, Ed.....	699 96	*1923	Larivière, C.....	1,631 96
1922	Gisborne, F. H.....	4,200 00	*1907	Larose, Anatole.....	425 00
1921	Godwin, Jas.....	806 40	1921	Lawless, M.....	785 34
1922	Golden, J. J.....	1,083 96	1924	Lawrence, J. W.....	524 16
1897	Gordon, J. McD.....	785 28	*1909	LeBlanc, Chas. P.....	111 58
1920	Gow, W. J.....	1,526 28	1921	LeBlanc, J. J.....	55 00
1918	Graham, Wm. J.....	1,399 92	1923	Ledoux, Jos.....	1,050 00
*1922	Gray, H. H. O.....	735 00	1903	Leduc, C.....	128 04
1903	Grenier, Adolphe.....	151 32	1919	Lefebvre, Louis.....	1,119 96
1921	Grimason, T.....	1,399 92	1907	Legault, O.....	180 00
1922	Hale, J. S.....	1,805 13	1903	Leguerrier, J. B.....	112 20
1914	Hall, William S.....	768 48	1922	Letteau, H.....	981 48
*1912	Hambly, P. H.....	307 80	1897	Lightfoot, F. C.....	502 80
1919	Hanley, Archibald.....	1,050 00	1895	Lilley, J. H.....	142 80
1922	Hanrahan, P.....	1,174 44	*1923	Loan, J. B.....	897 60
1909	Harper, James F.....	300 00	1914	Low, A. P.....	3,099 96
1923	Harris, G. M.....	1,701 78	1903	Lussier, Joseph.....	264 00
1904	Harris, J. H.....	168 00	1899	Lynes, K.....	441 96
1909	Hawkesworth, G. A.....	677 52	1922	Lynn, J.....	758 40
1922	Hayes, Jeremiah.....	817 44	1922	Lynton, T. C.....	1,082 64
1924	Hayes, John J.....	1,200 72	1927	MacDonald, Henry.....	1,218 00
1905	Hayes, W. H.....	610 00	1914	MacDonald, John G.....	520 44
1914	Hayward, W. G.....	446 64	1921	Mackay, J. E. B.....	1,030 44
1921	Heintz, R. M.....	2,070 72	1902	MacKillop, J.....	240 00
1918	Helliwell, H. N.....	1,050 00	1910	Mackinnon, W. C.....	637 92
1914	Henry, K. J.....	1,959 96	1924	MacLeod, J. O.....	2,100 00
1921	Hesson, C. A.....	1,301 16			

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 1	\$ cts.		SUPERANNUATION No. 1	\$ cts.
*1919	Macpherson, W. T.	102 00	1923	Newbury, J. C.	2,799 96
1920	Magee, R. G.	979 92	*1911	Newby, Frank.	1,026 63
1912	Mailman, J. A.	464 76	*1917	Newcomb, Geo. H.	260 04
*1907	Mainguy, Philip A.	326 62	1914	Newsome, A. E.	297 24
1919	Malcolm, Jas.	951 96	1922	Nicholls, Wm.	1,046 04
1908	Maracle, F. K.	366 36	1922	Noel, J. P.	841 44
1920	Marceau, J. O.	1,758 48	1912	Nolet, J. G.	636 96
1920	Marshall, J. W.	2,380 00	1897	Nugent, James.	156 00
1922	Martin, J. C.	2,166 89	1924	O'Connell, Ellen M.	1,638 00
1906	Martin, Jules G.	156 00	1904	O'Connor, Mrs. Eleanor.	367 92
1915	Mason, Frederick.	1,516 66	1922	O'Connor, Jas.	1,256 64
1925	Masse, A.	1,119 96	1917	O'Connor, John F.	1,650 72
1926	Masters, Chas. H.	2,776 66	1922	O'Donoghue, M. J.	1,239 96
1921	Mathieu, A.	1,033 20	1914	O'Leary, Thos. Jos.	919 32
1922	Matthewman, E. H.	1,988 00	1922	Oliver, F. A.	639 96
1916	May, Ida M.	696 00	1919	O'Meara, D. D.	2,100 00
1920	Maynard, M. W.	1,959 96	1922	O'Neil, H. T.	1,050 00
1922	Mercer, R. G.	1,991 16	1915	O'Regan, W. H.	243 03
1917	Mercer, Wm. O.	1,959 96	1925	Orr, D. G. E.	1,113 00
1922	Merrick, K.	1,171 32	1913	Ouellet, F. X.	499 20
1903	Miggins, M.	216 00	*1912	Owen, Charles.	122 49
1907	Miller, John G.	687 12	1921	Panneton, C. E.	932 88
1907	Milne, Chas.	240 36	1919	Parish, G. H.	1,312 51
1922	Mitchell, Wm.	1,082 64	1914	Park, Robt. H.	741 00
1924	Moffat, R. B. E.	1,586 68	1909	Parker, Lewis.	1,189 92
1922	Mollard, J. T.	1,260 00	1924	Parry, W. S.	1,008 00
*1920	Montizambert, Dr. Fred.	2,527 76	1923	Parson, B. A.	1,092 00
1922	Moon, F. G.	2,162 16	1922	Patrick, Mary.	1,046 04
1912	Moore, T. E.	390 53	1922	Payne, Edward.	960 00
1925	Moren, M. J.	1,431 48	1904	Pearce, Wm.	1,265 00
1904	Morris, Chas. E.	12 00	1912	Pearson, W. O.	468 65
1918	Morrissey, John.	582 12	1917	Perkins, Francis N.	469 44
1909	Mulhern, M. M.	810 60	1910	Plamondon, O.	495 96
1912	Mullin, Thos.	288 24	1897	Plante, Gaspard.	264 00
1914	Mundy, W. A.	532 08	1907	Plunkett, Joseph M.	296 33
1901	Murphy, Wm.	415 92	1921	Pollock, G. B.	1,032 48
1919	Murray, J. P.	1,119 96	1918	Pope, Chas.	1,470 00
1916	Myers, Robt.	654 36	1912	Porter, E. H.	210 00
1921	McAuley, D.	210 00	1918	Potter, M. J.	1,540 00
1925	McCarthy, Nona.	1,056 96	1913	Pottinger, David.	4,899 96
1906	McClive, John.	480 00	1928	Power, C. E.	1,233 12
1921	McConnell, R. G.	3,950 88	1919	Power, F. J.	1,119 96
1916	McCormick, Edgar.	571 92	1917	Power, John R.	1,050 00
1925	McDonald, B. R.	2,155 92	1922	Pringle, Jas.	1,174 42
1921	McGovern, J. J.	1,119 96	1924	Prud'homme, L. T.	1,680 00
*1917	McKenzie, A.	79 33	1915	Ralph, Arthur R. F.	603 96
1919	McKeown, J. A.	544 56	1921	Ramsden, J. A.	1,160 64
1921	McKinley, C. H.	69 96	1917	Ramsey, W. J.	1,001 00
*1922	McKinnon, M.	1,060 47	*1922	Ratcliff, C. E.	612 50
1918	McLaren, Duncan.	319 32	1924	Raymond, R.	1,119 96
1922	McLellan, N.	1,084 08	1928	Reading, T. J.	1,019 64
1913	McMordie, A.	481 92	1897	Reed, Hayter.	1,109 29
1909	McNair, W. C.	368 28	1912	Reeves, C.	602 52
1922	McNeil, Neil.	1,420 21	1917	Renton, John L.	909 96
1925	McNeal, W. L.	1,155 60	*1914	Richard, Alphonse.	105 00
1911	McNicol, John.	1,470 00	*1921	Richardson, H. E.	62 68
1899	McRobert, W. H.	288 00	1906	Richardson, William.	388 20
1928	McRoberts, J. E.	1,197 00	*1902	Richey, W. M.	178 20
1923	McRobie, A. J.	1,260 00	1902	Rivers, Robt.	259 92
1923	McRobie, J. T.	1,092 00	*1922	Robert, P.	771 32
1909	McShane, J. F.	372 00	1923	Robinson, L.	1,099 56
1907	McTaggart, John.	322 00	1923	Roche, Geo.	1,088 00
1917	Nesbitt, Margaret W.	699 96	1922	Rochester, F. K.	2,171 16
1916	Nevins, N.	302 40	1921	Rodgers, Geo.	723 72
1897	Newberry, I. M.	207 60	1895	Russell, A. J. H.	672 00
1906	Newbigging, Thomas L.	476 40	1922	Rutherford, Jas.	1,899 24
1909	Newbury, C. W.	700 00	1922	Saucier, X.	2,346 24

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 1	\$ cts.		SUPERANNUATION No. 1	\$ cts.
1918	Saulnier, John.....	181 92	1917	Vezina, Ulrich.....	1,256 04
1921	Saunders, C. J.....	746 64	1925	Wagner, D. J.....	1,920 60
1910	Scholes, Adam.....	422 76	1921	Wagner, M. A.....	889 68
1903	Scott, John.....	504 00	1921	Walker, E. M.....	1,445 64
1903	Seely, Neil.....	216 00	1897	Walker, Wm. B.....	207 96
1923	Seguin, F. O. O.....	1,936 56	1907	Wallace, J. J.....	1,749 96
1924	Sewell, T. C.....	1,218 00	1915	Ward, Joseph.....	648 12
1909	Seymour, A. J. B.....	540 00	1915	Warwicker, W. S.....	655 80
1923	Shannon, S. L.....	4,200 00	1923	Watson, C.....	1,122 00
1917	Shaughnessy, John.....	768 00	*1921	Watson, Jas. W.....	1,116 50
1888	Shaw, G. A.....	403 20	1913	Webber, E. M.....	552 00
1922	Shaw, H. S.....	1,556 52	1922	Wells, W. J.....	1,016 22
1919	Shaw, Mary.....	736 20	1903	Wheeler, F. C.....	351 96
1913	Shaw, M. M.....	388 92	1916	Whitcher, A. H.....	1,470 00
1921	Sherwood, H.....	1,872 50	1917	White, Robt. S.....	1,890 00
1924	Simard, Jean B. M.....	1,073 28	1922	Wigle, A.....	2,196 84
*1921	Simard, Leon.....	141 09	*1900	Williams, Jos.....	300 00
1922	Simons, J.....	1,260 00	*1908	Williams, Thomas.....	1,188 00
1922	Simpson, A. F.....	2,358 00	1918	Wills, Geo. W.....	1,302 00
1919	Simpson, H. E.....	1,008 00	1901	Wilson, I. H.....	261 24
1922	Skelly, E. J.....	1,084 08	1909	Wilson, John.....	380 28
1921	Smith, C. E.....	1,260 00	1920	Wilson, Jos.....	1,016 88
1908	Smith, E. L.....	521 04	1922	Wilson, W. T.....	1,875 14
1913	Smith, Gertrude.....	546 00	1918	Wood, E. B.....	1,470 00
1902	Smith, J. Rose.....	980 00	1920	Wood, John.....	619 63
1922	Smith, Mark.....	750 84	1901	Woodland, I. H.....	120 36
1928	Smith, V.....	1,021 92	1917	Wright, Jos.....	1,734 36
1925	Sowter, T. W. E.....	1,302 00	1922	Wright, R. P.....	1,084 08
1918	Sparks, Robert.....	1,248 24	1912	Young, G. H.....	1,749 96
1919	Spence, F. H.....	1,050 00		Total, Superannuation No. 1	521,189 98
*1921	Spencer, J. H.....	746 64		SUPERANNUATION No. 2	
1924	Springate, Geo.....	895 92		Civil Service Superannuation	
1921	Sproule, J. F.....	953 40		and Retirement Act, 1893,	
*1920	Stanton, C.....	1,701 35		Chap. 17, R.S. 1906	
*1921	Steacy, C.....	67 16			
1919	Steele, E. Y.....	1,119 96	1925	Atkinson, J. H. C.....	1,041 60
1924	Stephenson, E. F.....	2,799 96	1928	Beattie, V. B.....	1,025 40
1925	Stevens, W. F.....	1,283 76	1918	Bégin, Ludger.....	431 88
1905	Stewart, Chas. R.....	452 16	1916	Bernard, Henry.....	431 88
1924	Stewart, D.....	2,100 00	1922	Caron, Louis.....	702 36
1914	Stewart, H. E.....	712 92	1917	Davieau, P.....	384 00
1921	Stewart, W. C. E.....	1,897 77	1920	Farrell, F. J.....	1,052 76
1919	Stokes, Wm.....	980 00	1920	Farrow, H. W.....	799 20
1919	Storr, Ira W.....	2,310 00	1921	Francis, John.....	625 08
1924	St. Denis, E. H.....	2,736 96	1922	Grey, C. L.....	1,386 00
1922	St. Onge, J. A.....	721 20	1922	Hoey, Wm.....	327 00
1926	Strange, J. Campbell.....	2,730 00	1912	Humphrey, Wyndham.....	1,066 32
1927	Strong, William.....	484 44	1922	Johnston, R. A. A.....	2,593 44
*1916	Sutherland, Geo. C.....	223 92	1919	Kennedy, J.....	647 39
1925	Swaine, G. B.....	297 48	1926	Kissick, W. J.....	906 72
1922	Sweetnam, G. B.....	1,512 00	1924	Lambert, T. E.....	2,064 60
*1911	Symes, P. B.....	925 54	1927	Lamere, Joseph.....	1,193 40
1920	Taché, J. C.....	2,046 24	1922	Leyden, M.....	1,024 08
1897	Tansey, D.....	300 00	1919	Loftus, S. R.....	714 92
1924	Taylor, C. J.....	2,331 00	1927	MacCallum, J. S.....	1,173 60
1927	Taylor, E. H.....	1,176 00	1923	MacLaughlin, T. J.....	1,347 50
1917	Theakston, Major John.....	657 24	*1924	Martin, E. S.....	674 08
1929	Theriault, E. E.....	306 82	1921	Mitchell, Thomas.....	923 28
1901	Thomas, G. A.....	351 96	1921	Montanari, A. N. P.....	575 40
1922	Thompson, A. G.....	1,913 16	1913	Morgan, M. H.....	313 80
1927	Thompson, D.....	310 83	1927	McCandlish, Alfred.....	1,696 20
1922	Throop, A. W.....	2,535 24	1920	McMartin, D.....	663 30
*1921	Till, Thomas M.....	118 60	1913	O'Brien, A. H.....	1,741 44
1913	Toupin, F. X. J. A.....	1,635 00	1913	Osborne, F. A.....	578 64
*1912	Turgeon, C. E.....	93 33	1921	Paradis, Eugène.....	1,944 00
*1918	Turner, H. H.....	956 64			
1906	Upper, A. H.....	187 08			
1921	Valeur, Jos. A.....	1,027 80			

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Retired in	Name	Amount paid	Retired in	Name	Amount paid
	SUPERANNUATION No. 2	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1916	Phelan, Dr. Daniel.....	1,638 00	1924	Addison, Robt.....	845 88
1927	Picken, Thos.....	702 72	1924	Aird, G. D.....	561 60
1923	Porter, N.....	1,028 25	1921	Aitkens, Alex.....	436 80
1923	Reading, W. B.....	1,591 92	1921	Alexander, F. J.....	1,094 76
1925	Riggs, Jas.....	998 16	1924	Alexander, John F.....	497 40
1925	Ring, M. J.....	1,035 36	1923	Allan, H.....	933 96
1913	Roe, Geo. H.....	452 76	1924	Allan, J. B.....	972 36
1913	Ross, H. E.....	144 00	1923	Allen, J. W.....	116 16
1917	Rouillard, A.....	643 80	1924	Allen, W. A.....	251 64
1911	Ryan, W. L.....	288 00	1924	Allin, W. W.....	360 00
1914	Scott, John L.....	376 08	1924	Almon, G. W. R.....	1,014 96
1917	Shaw, Margaret.....	528 00	1924	Amey, W. J.....	533 16
*1922	Simpson, A. M.....	75 83	1921	Amira, C. A.....	402 36
1924	Thompson, W. H.....	882 00	1924	Andrews, S. D.....	727 92
1927	Williams, M. A.....	1,539 96	1922	Annand, T. E.....	794 52
1913	Wood, S. J.....	328 68	1923	Antoney, C. C.....	684 97
1915	Young, R. St. B.....	436 32	1924	Appleton, Edward.....	975 48
Total, Superannuation No. 2		42,739 11	1924	Ard, John.....	216 00
SUPERANNUATION No. 3			*1921	Armstrong, E. M.....	615 83
(Printing Bureau)			1922	Armstrong, F. J.....	750 00
1920	Allan, William C.....	1,099 98	1924	Armstrong, F. S.....	649 92
1920	Askwith, Francis.....	566 16	*1923	Armstrong, Nelson.....	20 79
1920	Baker, Alexander.....	678 00	1921	Atkins, B. R.....	651 00
1920	Baker, Guy C.....	678 00	1924	Atkinson, H.....	1,997 40
1920	Belleau, Laurent A.....	922 56	1922	Atkinson, W.....	216 12
1920	Bonnell, Amos.....	678 12	1924	Aube, W.....	524 64
1920	Charrier, Médéric.....	514 56	1922	Auger, A. L.....	1,390 00
*1920	Donnelly, John.....	282 45	1922	Auger, V.....	897 72
1920	Ducharme, Alfred.....	678 00	1924	Aylesworth, Geo. A.....	504 00
1920	Gagné, Napoléon.....	678 00	*1924	Babin, E.....	375 00
1920	Godin, Théophile.....	678 00	1924	Babington, F. W.....	1,650 00
1920	Gorman, Thos. M.....	678 12	1921	Bacon J.....	118 44
1920	Jobin, Jean Baptiste.....	710 40	1921	Badeau, N.....	881 52
*1920	Juneau, Pierre A.....	67 43	1924	Bagnell, E.....	219 23
1920	Lepine, Jos.....	611 28	1924	Baillie, C. H.....	480 00
1920	Mahoney, Johanna.....	284 88	*1924	Baker, Wm.....	9 44
1920	Maurier, Marius J.....	683 64	1924	Ballantine, A.....	447 84
1920	Reynolds, William H.....	922 68	1924	Bambrick, Edward.....	487 56
1920	Richard, Joseph E.....	678 00	1921	Barfoot, S. R.....	1,200 00
1920	Rigby, Catharine T.....	290 88	1924	Barry, E. J.....	291 00
1920	Savery, Sophie.....	290 88	1924	Bart, Alfred.....	924 12
1920	Seguin, Joseph.....	613 08	1922	Barton, A.....	267 00
*1920	Servant, Louis.....	46 16	1924	Barton, Samuel.....	
*1920	Teague, Wm. C.....	683 64	1924	Bastien, J. A.....	235 68
1920	Thoburn, Daniel.....	780 96	1923	Battle, K. M.....	431 88
1920	Twoy, Mary.....	290 76	1924	Baylie, Chas.....	1,041 60
1920	Valiquette, Mary Ann.....	165 12	1924	Beardsley, G.....	447 96
1920	Wellard, Alfred.....	678 00	1922	Beauchesne, J. A.....	432 72
Total, Superannuation No. 3		15,929 74	1924	Beaudet, Captain J.....	418 20
SUPERANNUATION No. 4			1922	Beckett, E. W.....	393 24
Public Service Retirement Act of 1920			1924	Bedard, Eugene.....	661 68
1922	Abbey, A. B.....	471 24	1922	Bedard, J.....	626 28
1922	Abercrombie, R.....	145 80	1924	Bedard, V.....	462 00
1924	Ackerman, A.....	507 48	1924	Beddoe, W. A.....	1,164 80
1920	Adams, J. A.....	398 88	1924	Begin, P. A.....	1,050 00
1924	Adams, W. A.....	1,127 00	*1921	Belanger, Adrien.....	42 78
1921	Adamson, W. J.....	573 72	1922	Belanger, August.....	405 00
			1921	Belanger, G.....	644 52
			*1922	Belanger, L.....	444 40
			1924	Belanger, Philias.....	
			1924	Bell, F. S.....	393 24
			1924	Bell, J. J.....	559 92
			1924	Belleau, J. A.....	1,290 00
			1924	Belleperche, A. J. E.....	888 96
			1924	Bennett, C.....	468 72
			1923	Bennett, W. A.....	299 09
			1924	Bennett, W. V.....	1,714 86
			1924	Bennie, J. K.....	804 96

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1924	Benson, P. H. C.	1,165 44	1921	Bucke, M.	530 04
1924	Berard, J. C.	747 48	1924	Bunelle, Geo. L.	1,050 00
1922	Bergeron, Jos.	541 44	1921	Burgess, T.	548 28
1921	Bergeron, N.	632 40	1923	Burke, Henry	360 60
1921	Bergevin, W.	265 68	1924	Burnett, W. B.	471 42
1924	Bergin, Jas.	819 00	1924	Burns, A. W.	783 00
1923	Berlinquet, F. X. T.	1,440 00	1923	Burns, Margaret	409 44
1922	Bernasconi, G. A.	1,509 36	1923	Burns, Mary	409 44
1924	Bernier, Chas. C.	699 96	1923	Burns, R. J.	825 96
1921	Beroard, C. P. V.	1,404 12	1924	Burroughs, A.	756 00
1924	Binks, T. C.	324 48	*1924	Burrows, Jos.	43 89
*1924	Bishop, Thos.	401 83	1922	Bushen, Josiah	351 24
1922	Bissonnette, L.	750 12	1924	Busselle, A. W.	840 00
1924	Black, John	2,400 00	1923	Cairns, A. E.	553 68
1924	Black, T. McC.	539 52	1921	Caldwell, J. W.	1,026 67
1924	Blais, J. C. F.	660 00	1921	Cameron, E.	168 24
1923	Blake, F. L.	1,260 00	1924	Campbell, A. E.	396 60
*1924	Blanchard, I. M.	217 90	1924	Campbell, D. A.	240 00
1923	Blaxland, S. W.	171 96	1922	Campbell, David	212 52
1924	Blette, P.	679 32	1921	Campbell, J. M.	612 84
1922	Blois, J.	768 56	*1924	Campbell, John	623 05
1924	Boileau, J.	240 72	1921	Card, Chas.	243 64
1924	Boivin, F.	282 00	1922	Carey, B. T.	547 44
1924	Boles, Thos.	389 28	1921	Carey, John A.	158 28
1921	Bolton, M. E.	502 56	1924	Carmichael, D.	350 40
1924	Booth, John	109 92	1924	Caron, F. X.	394 32
1922	Booth, Thos.	97 90	1923	Carpentier, C.	306 00
1924	Bottomley, W. C.	242 58	1923	Carr, Thos.	232 32
1922	Bouchard, P. A.	340 20	1924	Cartier, L. A. D.	924 00
1922	Boudreault, F.	83 30	1924	Carty, John	399 96
1924	Boulais, D.	197 76	1923	Cashen, Jas.	205 02
1924	Boulay, M. L. C.	650 00	1922	Casselman, L. J.	144 96
1922	Bourbonnais, O.	89 64	1924	Caven, John	483 00
1922	Bourgeault, C. E.	316 56	1924	Chadwick, F.	1,140 00
1924	Bourget, A.	473 88	1922	Chagnon, J. E.	265 68
1924	Bourke, M.	372 23	1922	Chambers, S. E.	609 48
1924	Bouvier, Ulric	200 76	1924	Champagne, T.	511 80
1921	Bowden, G. M. M.	649 92	1922	Chaplin, T.	314 40
1924	Bowman, A.	168 00	1924	Charbonneau, N.	605 94
1921	Boyd, J. C.	918 60	1923	Charland, J.	406 08
1922	Boyd, John	358 05	1924	Charlier, E.	
1924	Boyer, M. A.	940 56	1924	Charlton, C. H.	531 24
1923	Boyle, Jas.	280 80	1924	Chartrand, Chas.	594 60
1923	Boyle, Robt.	259 20	1924	Chartrand, D.	231 48
1924	Brabazon, A. J.	1,560 00	1924	Chartrand, G.	222 00
1923	Braden, E. P.	647 88	*1921	Chevrier, B.	22 76
1921	Brady, J. C.	483 00	1922	Chinic, E. N.	589 92
1924	Brault, L.	463 92	1924	Chisholm, John J.	759 96
*1921	Breen, R.	388 33	1924	Chrystal, A. S.	234 00
1923	Bremner, C.	351 00	1924	Church, Geo. C.	372 00
1921	Brice, E. E.	373 32	1923	Chute, F. B.	128 28
1924	Brisson, J. B.	223 56	1924	Clancy, M.	660 00
*1924	Brodie, A. W.	88 84	*1922	Clapin, E.	282 26
1922	Brooks, H.	163 08	1922	Clarke, C. H.	795 00
1924	Brossard, T.	367 92	1922	Clarke, H. G.	540 00
1923	Brousseau, S. H.	283 32	1924	Clarke, John D.	1,733 28
1922	Brown, Agnes L.	540 72	1923	Clarke, R. O.	447 36
1924	Brown, Alex.	1,104 96	*1924	Cleary, M.	178 43
1924	Brown, Allan	685 44	1923	Clement, A.	379 44
1924	Brown, Denis	414 60	1923	Clement, G. T.	540 00
1924	Brown, George B.	474 36	*1924	Clendinnen, C. A. E.	706 45
*1921	Brown, J. C.	96 69	1924	Clerke, Robt.	661 20
1922	Brownlow, W.	1,099 92	1922	Close, C. W.	980 00
1924	Brunet, L. B. C.	636 00	1923	Coates, J. T.	609 96
1921	Bryce, P. H.	1,133 28	1924	Cochrane, Leo. W.	688 68
1924	Buchanan, D. J.	405 00	1924	Cogswell, O. H.	881 76
*1922	Buchanan, G.	40 55	1924	Cohoon, Thos.	288 00

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1921	Colley, F.....	474 84	*1924	Dionne, P.....	111 56
1924	Collins, F. A.....	607 44	1924	Doherty, Chas. G.....	211 56
1921	Connolly, W.....	1,087 92	1924	Doherty, I. W.....	539 52
1924	Cooke, Chas. A.....	1,089 96	1924	Doig, James.....	467 16
1921	Copp, A. O.....	336 00	*1922	Donaldson, John.....	250 35
*1922	Corbeil, L.....	427 75	1924	Donovan, W. M.....	779 76
1924	Corkery, John.....	1,496 64	1922	Dooley, J. J.....	244 08
1924	Corkum, J. S.....	49 95	1924	Doran, Wm.....	108 00
1921	Corner, K.....	518 52	1924	Dorion, D. N.....	505 08
1921	Cosgrave, Geo.....	622 20	1923	Dorval, G. S.....	549 60
1924	Cosgrove, Robt.....	549 36	1922	Douglas, R. C.....	1,516 58
1924	Cosgrove, T.....	484 99	1921	Doyle, E. F.....	577 44
1924	Cosky, L.....	900 00	1922	Doyle, H. E.....	496 92
1924	Côté, Alfred.....	936 48	1923	Drake, E. F.....	2,274 96
1924	Courbron, E.....	235 00	1920	Drapeau, J. A. P.....	976 24
1923	Cournoyer, B.....	570 48	1924	Drapeau, P.....	771 60
1924	Cournoyer, Jean.....	63 45	1924	Drew, A. G. F.....	493 44
1924	Courtney, D. G.....	1,136 64	1924	Drillio, Geo.....	565 44
1922	Coutts, J. J.....	575 64	1924	Driscoll, Daniel.....	529 56
1922	Couture, C. A.....	1,035 00	1924	Driscoll, James L.....	
1921	Cowling, R.....	549 24	1924	Driscoll, Patrick.....	306 00
1924	Cox, Mrs. S. S.....	805 92	1922	Drolet, A.....	250 68
1924	Cragg, John.....	195 00	1921	Drolet, J.....	220 08
1924	Craig, B. F.....	1,092 00	1924	Drolet, Pierre.....	277 20
1921	Craig, Geo.....	1,393 32	1922	Dubé, Jos.....	503 88
1921	Craig, Jas.....	265 80	1924	Dubois, A.....	546 60
1923	Craig, J. A.....	396 00	1923	Duclos, Geo.....	862 92
1923	Craig, W. E.....	410 76	1924	Duclos, P.....	954 24
1924	Cranston, A. J.....	600 72	1924	Dugal, A.....	660 00
1921	Crépeau, Wm.....	331 08	1921	Dunbar, R. C.....	1,031 28
1924	Crilly, Wm. H.....	189 00	1921	Duncan, W.....	315 00
1924	Crites, D. A.....	776 52	1921	Dunlop, John.....	425 16
1922	Croucher, Geo. A.....	429 96	1924	Dunn, J. A.....	714 12
1924	Cruickshank, Geo. A.....	645 60	1922	Duplessis, L.....	430 56
1921	Cummings, W.....	336 84	1924	Dupuis, A.....	213 48
1924	Curry, Chas.....	187 00	1924	Dyble, John H.....	346 50
1924	Custaloe, R.....	416 64	1924	Dye, Benjamin.....	198 00
1924	Cyr, E.....	307 95	1922	Earl, R. W.....	474 96
1923	D'Aoust, A.....	174 72	1924	Eddie, Chas.....	662 20
1924	Daley, Robt.....	436 44	1921	Eddy, J. A.....	778 08
1924	Dalglish, G. M.....	625 32	1922	Edgar, J.....	699 96
1924	Dallain, A. J.....	1,140 00	1924	Edgar, W. W.....	900 00
1921	Dauphin, A.....	216 60	1924	Edwards, J. F.....	674 31
1924	Daveluy, J. A. P.....	857 76	1922	Eldridge, C. C.....	900 00
1921	David, T.....	264 48	*1924	Elliott, Chas.....	643 75
1924	Davis, L. C.....	177 76	1921	Elliott, C. H.....	750 00
1924	Davy, E. S. F.....	453 24	1921	Elliott, Eliza.....	263 40
1924	Dawson, J. P.....	1,265 00	1924	Elliott, G. W.....	949 92
1924	Dawson, Dr. W. B.....	2,100 00	1924	Elliott, Thos.....	478 08
1924	Deasy, Thos.....	1,106 64	1924	Ellis, Wm. T.....	535 92
1924	Deavy, Thos.....	659 40	1921	Elsterman, F. W. B.....	285 67
1923	Dechêne, A. M.....	906 84	1924	Emery, H.....	727 92
1924	Delaney, John.....	750 00	1921	Emmett, C. D.....	354 36
1923	Delosse, A. P. V.....	281 64	1921	Emmett, F.....	289 08
1922	Denesault, Wm.....	78 57	*1924	England, Frederick.....	165 28
1921	Denechaud, C.....	502 56	1923	Erratt, W. H.....	295 08
1924	Dery, Joseph.....	727 44	1922	Ewing, R.....	755 56
1924	Deschesnes, M.....	203 16	1924	Eynouf, Geo.....	146 51
1924	Desforges, X.....	236 16	1923	Fahey, J.....	681 00
1924	Desilets, J. A.....	754 08	1924	Fairen, F.....	760 44
1922	Desmarais, H. O.....	139 68	1921	Farquharson, D. R.....	715 56
1923	Desmarais, S.....	472 68	1923	Farrell, Julia.....	534 96
1923	Desrochers, Z.....	609 36	1924	Farrell, Minnie J.....	832 50
1924	Desroches, M. L. C.....	393 72	1924	Farrell, P.....	495 00
1922	Desrosiers, L. A.....	1,754 16	1924	Farrell, Wm. J.....	933 24
1924	Devine, Patrick.....	594 00	1922	Farrer, Emma E.....	229 56
1923	Dickson, W. H.....	790 20	1924	Farrow, M. Y.....	728 75

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1924	Faulkner, Geo.....	156 72	1924	Gore, W. J.....	414 00
1924	Favelle, John.....	376 56	1922	Goudie, John G.....	780 00
1924	Ferguson, D.....	832 47	1924	Gould, I. A.....	1,077 01
1923	Ferguson, J. N.....	813 16	1924	Graham, A.....	78 72
1924	Ferriman, W. J.....	714 48	1924	Graham, H. C.....	1,608 72
1921	Finkle, H. J.....	665 76	1921	Graham, S. L. C.....	497 88
1921	Fisher, C. A. L.....		1922	Graham, W.....	243 24
1924	Fitzgerald, E. W.....	943 32	1921	Graham, W. R.....	1,948 32
1924	Fjeldsted, T.....	139 92	1924	Granger, L.....	351 96
1924	Fleming, G. S.....	1,176 00	1921	Grant, A. F.....	366 60
1921	Fleming, Wm.....	289 92	1922	Grasse, P. L.....	513 00
1924	Fletcher, Hugh.....	465 72	1924	Gray, Geo. W.....	339 96
1921	Fletcher, R. W.....	923 52	1924	Grece, Wm.....	549 00
1921	Flynn, M.....	305 16	1924	Gregory, Chas.....	300 00
1924	Foran, J. K.....	1,722 48	1924	Grenier, Jos.....	454 56
1922	Ford, Mabel.....	666 36	1924	Grenier, S.....	235 80
1924	Foreman, H.....	693 48	1920	Grey, F. W.....	492 60
1923	Forest, S.....	753 96	1922	Grice, John.....	579 00
1924	Forget, A.....	647 40	1923	Grieve, A. D.....	1,009 92
1924	Forrest, Alex.....	1,625 28	1923	Griffith, W. L.....	2,747 11
1924	Forsyth, J. R.....	1,078 68	1924	Grison, A. A.....	1,138 32
1924	Fortier, A.....	1,643 28	1924	Guenet, A.....	354 96
1924	Fortin, F. X.....	786 48	1923	Guerard, A. E.....	420 09
1924	Fortune, Robt.....	315 72	1924	Guindon, A.....	415 92
1924	Foster, J. H.....	476 64	1924	Hackett, Annie.....	744 96
1924	Fotheringham, Geo.....	666 60	1924	Hagen, S. C.....	317 16
1922	Fowler, J. J.....	241 56	1921	Hagerty, B.....	561 48
1921	Franceour, A.....	166 56	1924	Hall, Geo. A.....	1,034 40
1924	Fraser, D.....	295 56	1924	Hall, Richard.....	469 92
1924	Fraser, Jas. L.....	128 28	1924	Hall, R. P.....	694 20
*1921	Fraser, M.....	473 43	1924	Halle, F.....	1,072 20
1923	Fredenburgh, G. C.....	360 00	1924	Halpenny, J. H.....	540 00
1922	Frenett, J. L.....	147 48	1921	Hamel, A.....	655 80
1920	Frink, J. H.....	980 52	1922	Hamilton, I.....	711 24
1924	Fuller, R. L.....	1,271 04	1921	Hamilton, P. J.....	624 84
1924	Fullerton, John.....	518 76	1924	Hamilton, W. B.....	597 00
1924	Fullerton, R.....	96 36	1924	Hamlett, O.....	228 00
1921	Fulthorp, G. E.....	342 84	1924	Hampshire, C. C.....	840 00
1923	Furnival, S.....	270 00	1924	Hand, E. J.....	561 12
1922	Gagne, F. X.....	799 92	1924	Handy, Jos.....	729 72
1921	Galbraith, Wm.....	481 92	1921	Hanlon, B. J.....	516 84
1924	Gamble, S.....	142 92	1924	Hanlon, Mary A.....	541 66
1924	Gammmon, T.....	203 40	1923	Hanson, P.....	315 84
1924	Gaston, John.....	236 16	1922	Harding, Jas.....	344 04
1924	Gaudet, P.....	984 72	1922	Harris, G. M.....	310 80
1921	Gaumont, Thos.....	383 40	1924	Harris, T. A.....	594 00
1922	Gauvin, Joseph C.....	820 68	1923	Harvey, J. W.....	1,008 00
*1924	Gauvreau, Alex.....	310 40	1923	Hastings, T. A.....	828 00
1924	Gauvreau, J. A.....	480 00	1921	Haws, W.....	426 84
1924	Gauvreau, N. B.....	1,032 00	*1924	Hay, Jos.....	239 02
1921	Genest, J. B.....	611 04	1921	Hayne, Thos.....	511 20
1924	Gent, A.....	368 52	1920	Heath, Geo.....	328 08
1921	Germain, M.....	245 76	1923	Hebert, John.....	726 24
*1924	Gervais, Wm.....	228 43	1924	Heeschen, C. C.....	561 60
1921	Gibbons, J. A.....	523 77	1921	Heffler, E.....	412 92
1924	Gibson, John.....	309 24	1921	Heise, W.....	272 64
1923	Giddens, F. W.....	1,264 92	1923	Hembrough, Thos.....	901 29
1923	Giffen, I. L.....	415 56	1924	Henderson, A.....	517 44
1922	Gillespie, Wm.....	401 76	1924	Henderson, Wm.....	1,500 00
1921	Gillis, John.....	429 36	*1921	Henley, I. C.....	315 18
1924	Gingras, E. X.....	1,050 00	1924	Heppelle, E.....	151 58
*1921	Girard, Chas.....	172 77	1924	Herbold, A.....	600 00
1924	Giroux, W. J.....	377 40	1921	Herchmer, F. K.....	1,434 96
1924	Glover, Thos.....	229 08	1922	Hicks, A. M.....	768 72
*1921	Goodday, L.....	162 88	1922	Hickson, R. J.....	907 08
1924	Goodhue, M. L. E. B.....	603 72	1924	Higgins, Wm.....	196 56
1924	Gordon, A. E.....	175 92	1924	Higman, O.....	2,179 08
1924	Gordon, F. G.....	690 56	1924	Hill, J. F.....	1,070 85

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1922	Hill, R. T.	437 40	1924	Labine, G.	1,366 56
1924	Hill, T. H.	450 00	1921	Labonté, L.	333 40
1924	Hillier, E. G.	559 92	1921	Lacombe, A.	432 48
1921	Hodgson, G.	705 00	1924	Lacombe, L.	222 48
1924	Hoey, Jas.	464 42	1924	Lacouture, L.	711 72
1921	Hollins, J. M.	653 40	1924	Lacroix, E. O. H.	767 40
*1924	Hope, Geo. F.	458 26	1924	Lacroix, S. C.	722 64
1924	Horner, F. B.	447 96	1924	Laflamme, V.	639 60
1922	Houde, G.	643 44	1924	Laforest, J.	786 60
1924	Houle, Jos.	283 92	1924	Lafortune, D.	589 68
1924	Houston, Geo.	239 04	1924	Lafrance, I.	394 20
1924	Howard, E.	320 04	1924	Lagacé, O.	169 20
1921	Howard, A. A.	390 00	1923	Lahaye, O.	614 28
1924	Howe, Thos.	1,140 00	1924	Lake, Wm.	582 72
1924	Howell, Thos.	852 00	1924	Lally, F.	953 28
1924	Howson, Geo. H.	565 92	1920	Lalonde, E.	162 72
1921	Hubbell, A. H.	404 16	1921	Lalonde, L. N.	512 88
1924	Hubley, C. F.	775 92	1921	Lamarre, A.	248 52
1924	Hudson, Chas.	872 04	1924	Lamoureux, A.	428 40
1924	Hughes, Wm.	474 24	1924	Lamoureux, F.	140 88
1922	Humphries, T.	1,380 00	1921	Langelier, F.	487 44
1922	Hunt, B. J.	914 28	1924	Langevin, P.	670 80
1923	Hunt, Robert.	305 16	1924	Lanteigne, G.	339 96
1923	Hunter, Jas.	821 88	1924	Lapierre, L.	94 44
1923	Hunter, S.	494 28	1924	Laplane, J. B.	273 65
1921	Hutchins, R. F.	459 72	1924	Laprise, Jos.	609 84
1921	Hutchinson, H. H.	666 60	1924	Larivée, H.	767 40
1921	Hutton, H. W.	319 44	1924	Larivière, N.	453 24
1921	Ireland, C.	195 36	1921	Larocque, J.	364 68
1924	Jackson, F. N.	726 00	1924	Larose, W.	1,369 44
1921	Jackson, S. J.	414 26	1924	Lavictoire, E.	448 68
1922	Jackson, W.	160 56	1924	Lebano, M.	64 96
1924	James, R. F.	481 56	*1924	Lebel, Chas. A.	151 66
1924	Jamieson, Wm. A.	735 48	1923	LeBlanc, B.	429 96
1922	Jean, E.	333 24	1921	Leblanc, J.	420 36
1922	Jeffcott, J. E.	861 36	*1920	LeBlanc, R.	39 96
1921	Jeffrey, C.	170 16	1924	Leblanc, S.	471 24
1924	Jenkins, Wm.	973 56	1924	Leclair, P.	637 44
1923	Jenks, J. N.	49 92	1924	Lederman, Agnes.	526 68
1924	Johnson, I. S.	540 00	1923	Lefebvre, A.	100 20
1921	Johnston, C. W.	838 50	1924	Legendre, Mrs. L.	262 08
1924	Johnston, C. H. J.	317 04	1924	Lemieux, J. A.	615 12
1924	Johnston, David.	207 96	1924	Lemieux, J. N.	798 00
1924	Johnstone, H. W.	900 00	1923	Lemieux, Z.	595 44
1924	Johnston, Jane McL.	300 00	1924	Lemire, J. N.	291 96
1923	Jones, A. E.	747 48	1924	Lenghen, C. G.	319 68
1921	Jukes, H. A.	1,134 00	1924	Leonard, J.	745 81
1924	Kealey, H.	270 00	1923	Lepage, C.	748 80
1923	Kealey, M. T.	452 52	1922	Lewis, A.	249 96
1924	Keays, E. M.	660 00	1924	Lewis, Lydia J.	738 72
1922	Kelly, G. P.	302 40	1923	Lewis, M.	364 92
1921	Kemp, E.	963 00	1924	Liberge, F.	379 56
1924	Kennedy, Wm.	404 64	1921	Limoges, A.	644 16
1924	Kenney, J. J.	189 00	1922	Lindeburgh, A. V.	714 00
1924	Kerr, J. W.	610 08	1924	Linloff, E.	162 00
1924	Kilduff, P. A.	480 00	1921	Little, C.	725 88
1921	King, G. C.	1,999 92	1924	Logan, D.	686 40
1921	Kingsmill, E. A.	618 72	1922	Long, W. H. A.	502 16
1924	Kingston, J. S.	493 32	1924	Longley, T. W.	315 00
1921	Kinsman, R. W.	288 80	1921	Loring, R. E.	1,098 24
1924	Kirk, J. T.	555 72	*1921	Lortie, V.	418 77
1924	Kirkwood, J. S.	1,107 48	1924	Low, E. J.	1,004 04
1924	Knox, Jos.	333 63	1923	Lowery, J.	287 16
1924	Kuhlman, J.	613 32	1922	Loyer, E.	405 12
1924	Kurs, Jos.	637 44	1924	Lundy, Thos.	464 76
1924	Kylie, Richard.	451 92	1924	Lunney, J. P.	656 88
*1924	Labelle, F.	180 00	1921	Lusher, Thos.	207 72
*1924	Labelle, Jos. E.	160 25	1921	Luttrell, Jos.	249 36

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1924	Lyman, C. C.....	525 00	1924	Moloney, A.....	244 40
1924	Macarow, M. E.....	447 96	1924	Monahan, P.....	623 76
1921	MacDonald, G. M.....	597 48	1924	Monette, Adrien.....	627 00
1921	MacDonald, J. B.....	283 32	1924	Mongrain, E.....	165 00
1924	MacDonald, Jessie C.....	472 56	1924	Montgomery, A.....	195 00
1924	Macdonald, L. S.....	496 56	*1922	Mooney, M.....	246 45
*1921	MacDonald, W.....	38 38	*1924	Moore, Robt.....	135 17
1924	Macdonell, J. H.....	253 44	1921	Morel, E. L.....	329 16
1924	MacKay, Robt.....	756 00	1921	Moriarty, B.....	195 00
1924	Mackenzie, John.....	499 92	1922	Morris, A. S.....	904 20
1924	MacKey, W. H.....	389 16	1924	Morris, T. J.....	435 72
1924	Mackie, Robt.....	420 00	1924	Morrison, A.....	537 48
1922	MacKintosh, C. H.....	416 64	1924	Morrison, A. J.....	108 24
*1924	MacMillan, A. T.....	330 90	1924	Morrison, W. J.....	333 96
1921	MacMillan, J. H.....	640 68	1923	Morton, Thos.....	780 00
1922	MacPherson, Duncan.....	1,319 16	1921	Mothersill, G. A.....	1,762 44
1921	MacRae, D. M.....	317 40	1924	Mowat, W. J.....	647 11
1924	Magee, D.....	126 24	1922	Muhlig, G. E.....	662 40
1923	Magee, W. D.....	741 00	1924	Mulligan, A.....	764 52
1921	Mahe, John.....	177 96	1924	Mullin, J.....	274 32
1924	Mailleue, H. W. G.....	647 50	1924	Mulroney, J. T.....	568 32
1924	Mair, Chas.....	871 92	1924	Mumford, L. S.....	265 80
1924	Major, A.....	345 24	1924	Munn, A.....	1,668 24
1924	Malette, N.....	125 04	1924	Munroe, J. J.....	374 28
1923	Malette, Nap.....	407 52	*1924	Murdock, P. C.....	340 07
*1924	Malouin, A.....	464 52	1924	Murphy, C.....	517 68
1924	Maloney, H. G.....	400 80	1924	Murphy, J. A.....	498 36
1924	Mann, G. G.....	516 60	1924	Murphy, M. A.....	473 28
1921	Marchant, W.....	1,273 08	1924	Murray, J. B.....	230 00
1923	Martial, H.....	454 92	1921	Murray, W. H.....	494 40
1922	Martin, A.....	691 56	1921	Murton, F. E.....	516 84
1924	Martin, F. E.....	1,001 00	1924	McCaffrey, John.....	546 00
1922	Martin, I. E.....	2,601 34	1924	McClintock, Jos.....	209 16
1922	Martin, T. C.....	247 50	1921	McClory, D.....	618 96
1922	Martin, W.....	104 40	1921	McColl, A. C.....	549 96
1924	Martineau, A. L. C.....	563 33	1922	McCombs, W. A.....	262 68
1922	Martineau, M. J.....	724 92	1924	McCoy, W. J.....	762 96
1924	Mathé, N. M.....	1,050 00	1924	McCullough, J. H.....	207 96
*1921	Mathieu, P.....	320 80	1924	McCully, G. A.....	609 00
1923	Matthews, A. M.....	238 32	1924	McDonald, Flora J.....	311 09
1924	Matthews, C. A.....	935 00	1924	McDonald, Jas.....	382 32
1924	Matthews, P. H.....	317 76	1924	McDonald, M.....	525 00
1924	Mayes, John.....	212 28	1924	McDonald, Rev. M.....	624 96
1924	Meadows, Geo. A.....	503 64	1921	McDonnell, T.....	307 20
1924	Meggs, A. E.....	205 48	1922	McDougall, Angus.....	166 92
1921	Mercer, E. N. H.....	646 32	1924	McEachern, G. B.....	977 64
1924	Mercier, J. B.....	1,099 08	1924	McEwan, J.....	758 40
1923	Merrithew, J. N.....	126 00	1922	McEwan, P. H.....	729 96
1923	Merry, E.....	518 76	1923	McEwan, R. H.....	213 51
1924	Messenger, H. W.....	527 01	1922	McGill, W.....	560 64
1922	Might, S. H.....	702 00	1922	McGonnell, Peter.....	894 36
1924	Migneault, A.....	528 00	1924	McGovern, J.....	845 26
1924	Milette, Sara.....	546 00	1923	McIvor, Isabella.....	313 80
1924	Millner, Geo. F.....	682 56	1920	McKay, J. C.....	811 08
1923	Mills, N.....	1,399 92	1921	McKay, John.....	506 40
1924	Mills, Wm.....	554 40	1921	McKay, Robt.....	785 76
1924	Milne, G. L.....	799 92	1921	McKean, M.....	728 16
1924	Milne, W. J.....	1,181 64	1924	McKenna, S.....	266 64
1924	Milner, W. C.....	1,119 96	1924	McKenzie, A.....	504 00
1923	Mitchell, G. H.....	1,587 48	1921	McKenzie, John.....	406 92
1924	Mitchell, J. A.....	787 44	1921	McKenzie, R. S.....	1,224 24
1923	Mitchell, J. T.....	540 00	1924	McLachlan, G. A.....	1,211 76
1921	Mitchell, J. W.....	544 44	1921	McLean, Donald.....	860 52
*1924	Mitchell, Robt.....	502 76	1921	McLean, W. J.....	112 50
1922	Mitchell, Wm.....	205 08	1921	McLennan, J. G.....	453 75
1921	Moblo, John.....	825 00	1924	McLeod, J.....	663 00
1924	Moesser, Wm.....	616 00	1924	McLeod, J. C.....	875 68

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1922	McLeod, W. McK.....	639 96	1924	Percival, T. M.....	600 00
1924	McNab, A. J.....	522 00	1924	Perkins, S. C.....	741 00
1924	McNeil, J.....	222 96	1922	Perreault, E. E.....	774 00
1923	McPhee, Jas.....	198 24	1921	Peters, J. N.....	373 56
1924	McPherson, J.....	969 72	1924	Peters, W. H.....	427 44
1924	McRae, A.....	420 00	1922	Phibbs, C. J.....	231 00
1920	McRae, C. F.....	316 80	1921	Phillips, J. I.....	210 15
1924	McShane, J.....	110 40	1924	Phoenix, A. J.....	527 76
1923	McTiernan, C.....	282 84	1924	Pickard, N.....	234 00
1921	Nesbitt, Geo.....	200 52	1924	Pickins, J. M.....	87 00
1924	Nesbitt, G. McQ.....	317 76	1921	Pigeon, H. H.....	559 92
1921	Nettle, F. J.....	437 40	1924	Pinkerton, Robt.....	236 16
1921	Nevins, F.....	530 40	1924	Plouffe, A.....	142 96
1924	Nevins, J.....	780 36	1924	Plouffe, N.....	214 44
1924	Nevins, Jos.....	412 50	1924	Poirier, M. O.....	1,125 00
1923	Newcombe, H.....	991 56	1924	Polley, W. H.....	371 52
1921	Newling, H. P.....	619 80	1922	Pollock, R.....	522 96
*1924	Nezan, L.....	95 87	1924	Pope, E.....	1,350 00
1924	Nichol, S.....	161 28	1924	Porteous, G. H.....	496 20
1924	Nicol, J.....	465 74	1922	Potter, Henry.....	466 56
1924	Noonan, H. T.....	672 00	1921	Potter, W.....	579 84
1922	Noonan, M. W.....	898 32	1922	Poulin, J.....	657 60
1923	Normand, N. M.....	225 48	1924	Preston, S. R.....	333 24
1924	O'Brien, C. F. G.....	559 92	1924	Prevost, J.....	443 76
1923	O'Brien, D.....	954 48	1920	Prevost, J. E. W.....	629 52
1924	O'Brien, J.....	384 24	1924	Prince, E. E.....	1,999 92
1922	O'Brien, J. C.....	549 60	1921	Probert, C. H.....	294 60
1924	O'Brien, M.....	780 00	1924	Proulx, J.....	120 78
1923	O'Brien, W.....	501 60	1924	Proulx, N.....	447 96
*1921	O'Connor, G.....	450 90	1921	Pruneau, A.....	263 40
1922	O'Connor, K. M.....	815 16	1921	Pye, J. R.....	600 00
1923	Ogburn, R. J.....	396 00	*1924	Quesnel, A.....	427 09
1924	O'Hanly, M.....	1,235 00	1924	Quinn, W. A.....	306 96
1920	O'Leary, D.....	1,425 00	1924	Ralston, B. W.....	882 00
1921	Oliver, E. C.....	709 92	1924	Raper, E. W.....	928 68
1924	O'Meara, M. T.....	233 28	1924	Rathbone, C. F. A.....	246 96
1924	O'Reilly, E.....	400 80	1924	Ray, G. H.....	172 20
1923	O'Reilly, M.....	71 43	1924	Ray, J. E.....	1,989 72
1924	Orr, S.....	165 72	1924	Raymond, M. L.....	360 00
1924	Osborne, J. L.....	278 98	1921	Raymond, W. G.....	985 49
1924	Osborne, N. P.....	342 48	1924	Read, G.....	941 64
1921	Owen, N. C.....	682 32	1924	Redhead, J. W.....	234 96
1921	Page, W.....	269 40	1924	Regimbal, A.....	1,403 28
1921	Palmer, S. A.....	331 56	1924	Remillard, L.....	432 00
*1924	Papillon, U.....	188 41	1924	Richardson, A. K.....	615 96
1923	Papineau, G. B.....	635 00	1921	Richer, A. M.....	395 52
1923	Papineau, L. G.....	1,710 00	1924	Rickey, J. A.....	561 94
1921	Paquet, F. X.....	1,409 16	1922	Riendieu, Arsene.....	936 00
1924	Paquet, J. B.....	271 92	1924	Riendieu, Avila.....	841 92
1924	Paradis, E.....	420 00	1921	Riley, T. J.....	622 20
1924	Paris, Z.....	674 52	1924	Ringrose, J.....	117 24
1922	Parker, Thos.....	706 94	1924	Rivers, C. A.....	463 56
1921	Parkin, T. M.....	417 84	1924	Rivoire, J. D.....	181 08
1922	Parrington, Jas.....	882 84	1922	Roberts, J. W. G.....	862 44
1924	Pastmore, C. J.....	483 00	1921	Roberts, T.....	900 00
1924	Patchell, W. A.....	1,732 44	*1922	Robertson, H. H.....	12 34
1924	Patching, R.....	960 00	1922	Robertson, J. J. B.....	882 84
1924	Patenaude, J.....	307 92	1924	Robertson, R. J.....	881 64
*1924	Patterson, C. C.....	227 56	1924	Robertson, W. A.....	1,112 40
1921	Pattie, R. P.....	297 84	1924	Robertson, W. B.....	924 47
1924	Pawling, J.....	556 08	1921	Robertson, W. R.....	715 08
1922	Payne, F. F.....	1,369 44	1923	Robitaille, S.....	649 92
1921	Payne, J. L.....	1,993 68	1924	Roche, C. P.....	945 00
1924	Pearce, E. J.....	1,144 92	1924	Rochette, P.....	444 00
1924	Pelletier, J. B.....	378 84	1924	Rodman, E. A.....	536 25
1924	Pelletier, R.....	773 04	1922	Roe, Lottie.....	405 12
1924	Peloquin, J.....	425 52	1921	Rogers, C. G.....	1,026 00
1924	Pennington, W.....	836 77	1921	Rogers, F.....	273 13

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
1924	Rombough, J. I.....	874 92	*1924	Songhurst, J. R.....	117 61
1923	Rose, D. J.....	328 80	*1924	Southcott, S. J.....	313 13
1924	Ross, A. H.....	314 16	1924	Stafford, J. P.....	900 00
1924	Ross, C.....	826 56	1924	Stalker, M.....	555 50
1923	Ross, W.....	116 52	1921	Stanley, E.....	795 84
1924	Routh, E.....	266 04	1921	Steadworthy, Wm.....	1,076 16
1922	Rowe, W.....	515 71	1920	Stephens, J. P.....	731 76
1924	Roy, A. J.....	899 64	1921	Stevens, A.....	643 68
1924	Roy, J. A.....	729 72	1921	Stewart, E.....	307 92
1923	Roy, M. F.....	580 68	1922	Ste-Marie, Jos.....	882 84
1924	Roy, M. L.....	498 24	1924	St-Marseille, A.....	119 86
1924	Ruest, E.....	125 52	1923	St-Maurice, A.....	99 00
1924	Runions, A.....	405 48	*1924	St-Michel, F. X.....	9 07
*1921	Russell, G. J. T.....	160 14	1924	Stewart, J. B.....	1,014 96
1924	Russell, J. W.....	300 00	1924	Stewart, L. J. G.....	609 73
1924	Russell, Robert.....	636 00	1924	Stingue, J.....	495 72
1924	Ryan, J.....	842 04	1921	Stockdale, R. F.....	269 16
1922	Rykart, J. C.....	600 00	1924	Stroulger, G. F.....	933 36
*1924	Sales, Wm.....	23 65	1924	Stuart, S. G.....	390 96
*1923	Salkus, Albert.....	252 80	1921	Suffern, A.....	384 00
1924	Salton, W. H.....	498 72	1924	Sullivan, D.....	473 85
1921	Sanagan, F. L.....	292 11	1923	Sullivan, J.....	534 84
1922	Saunders, C. E.....	1,128 88	1924	Sullivan, W. H.....	3,150 00
1924	Sauvageau, S.....	782 04	1921	Summers, A.....	653 88
1923	Sauve, Jos.....	239 76	1924	Sumner, F. E.....	514 44
1924	Savard, H.....	226 80	1924	Surtees, W. S.....	1,050 00
1924	Savard, J. B.....	482 04	1922	Suter, J.....	145 80
1921	Savard, J. J.....	361 44	1921	Sutherland, J. A.....	450 00
1924	Schuler, W. B.....	630 48	1924	Sutton, L. L.....	649 92
1924	Scott, J.....	202 92	*1921	Swindell, R.....	224 67
1924	Scott, M. M.....	630 00	*1921	Sword, Jas.....	40 28
1924	Sedgwick, J.....	410 76	1921	Taggart, Jas.....	540 48
1921	Seguin, D.....	609 00	1924	Taunton, W. D.....	400 80
1924	Seguin, V.....	253 56	1924	Taylor, G. J.....	615 96
1924	Selby, W. D.....	900 00	1924	Taylor, J. G.....	739 56
1924	Selwyn, P. H.....	1,312 44	1924	Taylor, John.....	624 24
1924	Semple, M. L.....	739 31	1924	Taylor, J. R.....	693 72
1923	Shanahan, C.....	459 12	1921	Taylor, N. H.....	569 88
1921	Sharp, A.....	885 24	1924	Taylor, T. G.....	1,515 28
1924	Sharp, J.....	679 92	*1921	Telford, D. M.....	71 66
1921	Shea, C.....	360 96	1922	Tétrault, F. X.....	
1924	Shehyn, A. R.....	951 96	1921	Tétu, A.....	702 48
1923	Shera, W. G.....	270 00	1924	Thibault, Jos.....	336 00
1924	Sherk, D.....	476 04	1921	Thibert, N.....	349 08
*1924	Shultis, G. T.....	68 44	1924	Thom, H.....	528 48
1921	Sidney, A. P.....	212 52	1923	Thomas, F. R.....	934 44
1924	Simard, S.....	418 68	1922	Thompson, J. T.....	270 36
1924	Simpson, F.....	415 92	1924	Thompson, W. G.....	720 00
*1922	Simpson, H. V.....	277 47	1924	Thomson, A.....	407 28
1921	Simpson, J. S.....	622 29	1921	Thrush, John.....	412 92
1924	Simpson, P. E.....	262 44	1924	Tison, R. A.....	775 44
1924	Sinclair, J. W.....	467 40	1924	Todd, R.....	
1924	Sixsmith, B. F.....	890 88	1921	Tolson, F. G.....	507 48
1921	Slater, M. A.....	647 88	*1924	Topham, F.....	503 58
1924	Sloan, J. B.....	195 00	1921	Towill, J.....	231 00
1924	Sloan, W.....	633 33	1924	Tramner, E. G.....	759 72
1921	Smith, A. H.....	757 32	1924	Tranter, K.....	412 50
1922	Smith, B. R.....		1924	Travis, C. A.....	651 24
1924	Smith, J.....	1,375 00	1924	Tremblay, F.....	197 16
*1922	Smith, John.....	692 62	1921	Tremblay, J. A.....	1,146 48
1923	Smith, John F.....	401 40	1924	Tremblay, O.....	540 84
*1924	Smith, Jos.....	3 49	1922	Tremblay, P.....	453 12
*1922	Smith, J. C.....	565 00	1922	Trépanier, L. A.....	908 52
1924	Smith, J. Obéd.....	2,899 92	*1924	Trodden, James.....	32 32
*1921	Smith, W.....	653 46	1924	Trudeau, A.....	530 04
1921	Smithers, R. O.....	461 16	1924	Trudel, E.....	1,183 32
1922	Snetsinger, J. S.....	460 80	1921	Turner, Geo.....	500 00

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 4	\$ cts.		SUPERANNUATION No. 4	\$ cts.
*1924	Tuura, A.	218 35	1924	Woodill, J. S.	845 40
1923	Upper, J.	383 52	1922	Wright, E.	481 44
*1924	Valiquet, U.	1,845 80	1924	Wright, L. K.	541 56
*1922	Valpy, J. T.	71 75	1921	Wurtele, S. T.	454 92
*1924	Vanasse, A. P.	231 03	1923	Yeomans, E. H.	873 96
1924	Vanasse, F.	1,219 44	1921	Yeomans, L. B.	440 28
1924	Vaughan, T.	259 60	1923	Young, B. R.	87 24
1924	Vermette, T.	390 00	1921	Young, U.	501 60
1924	Vert, A. E.	500 00	1924	Young, P. P.	525 00
*1924	Vicars, J. R.	751 73	1924	Zinkan, G. V.	1,244 40
1924	Vigneault, P. E.	750 00			
1924	Vincent, G. E.	450 00			631,293 08
1924	Voligny, L. R.	1,740 00		SUPERANNUATION No. 5	
1924	Vrooman, N. B.	1,140 00		Civil Service Superannuation Act, 1924, Chap. 24, R.S. 1927	
1922	Wagner, L.	101 64		Annuities to Contributors	
1924	Waine, F. E.	543 24	1928	Abra, S. B.	202 20
1924	Wainwright, P. H.	613 32	1928	Adamson, S.	567 60
1923	Wainwright, R.	752 88	1928	Alexander, J. J.	719 76
1924	Walker, G.	699 12	1925	Alkins, W.	204 00
1924	Walker, H. L.	598 44	1926	Allen, F. G.	1,327 56
1922	Walker, J.	432 24	1925	Allen, G. H.	1,260 00
1924	Walker, J. A.	326 76	1925	Alton, S. E.	152 37
1921	Walker, W. H.	480 00	1928	Anderson, D.	307 20
1924	Wallace, J. M.	541 32	1928	Anderson, T.	341 32
1922	Wallace, T. F.		1928	Andrews, E. L.	428 40
1924	Walsh, E.	346 08	1926	Andrews, G. P.	1,176 00
1922	Walsh, Thos.	416 88	1928	Appleby, J.	448 36
1922	Walsh, W.	750 00	1926	Arcand, A. A.	693 96
1922	Walters, H.	841 62	1928	Armstrong, E. W. H.	1,399 92
1924	Ward, A. E.	705 36	1929	Armstrong, W.	1,959 96
1922	Waterbury, D. H.	1,303 32	1928	Aymong, R. A.	2,247 00
1924	Waters, J.	146 74	1926	Back, M. J.	476 64
1924	Watson, Geo. A.	240 79	1928	Badeaux, L. B. N.	513 12
1924	Watterworth, E.	252 00	1926	Baillarge, E. S.	576 72
1924	Weasner, J.	235 32	1928	Baker, F. M.	2,683 32
1922	Weaver, Jas. A.	91 08	1928	Baldwin, W. C.	352 44
1923	Webber, B. C.	1,883 28	1928	Banford, Wm.	369 96
1922	Webster, C. E.	374 40	*1926	Banville, J.	46 60
1922	Webster, Geo.	86 30	1926	Barbe, W.	1,596 00
1924	Weese, J. W.	219 12	1928	Barcelo, J. C. H.	1,157 52
1924	Werry, F. W. O.	693 24	1928	Barnes, T.	367 32
1922	West, H.	422 76	1929	Barsalou, A.	704 64
1924	West, T.	821 76	*1928	Bartle, J. C.	1,266 96
1922	Weston, W. H.	393 25	*1924	Beaulieu, R.	102 96
1924	Wetmore, G. K.	396 00	1928	Bédard, C.	409 20
1922	Whalen, W. H.	416 99	1928	Bedlow, J. S.	349 91
1922	Whare, A.	275 28	1926	Béland, T.	792 00
1922	Wheatley, G. H.	1,125 00	1926	Belding, H. W.	1,119 96
1924	Wheeler, A. O.	733 32	1925	Belec, J.	349 68
1923	White, D.	186 96	1928	Bell, B. H.	788 52
1922	White, E. P. M.	716 04	1927	Belleau, A. E.	2,810 00
1922	White, G. A.	879 24	1928	Belleau, G. N.	408 12
1923	White, J. B.	540 00	1928	Bent, F. P.	2,463 58
1924	White, W. J.	2,250 00	1928	Bibaud, V.	533 88
1923	Whitty, M. J.	534 96	1928	Bible, J. E.	343 44
1923	Williams, H. A. C.	321 75	*1928	Birks, J. B.	371 50
1922	Williams, J. T. C.	987 96	1928	Bishop, H. F.	950 76
1924	Williams, W.	235 92	1928	Blakley, J. H.	1,100 88
*1923	Williscraft, A.	3 24	1928	Bletcher, W. S.	1,109 64
1924	Wilson, A. H.	391 92	1925	Boak, W. C.	1,131 24
1924	Wilson, G.	275 16	1928	Boggs, H. A.	1,630 92
1924	Wilson, H. A.	664 56	1926	Boivin, D.	890 40
1924	Wilson, J. A.	737 70	1929	Bouchard, J. M. A.	768 36
1924	Wilson, J. L.	216 24			
1924	Winchester, L.	605 04			
1924	Withrow, J. F. D.	1,008 00			
1922	Wolfenden, Wm.	762 48			

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 5	\$ cts.		SUPERANNUATION No. 5	\$ cts.
	<i>Annuities to Contributors</i>			<i>Annuities to Contributors</i>	
1928	Bourbonnière, E.	506 76	1928	Decary, F.	221 76
1924	Bourque, E.	461 11	1927	De Cotret, L. D. R. A.	1,605 24
1928	Bowles, H. W.	311 64	1927	de la Giroday, E.	311 76
1929	Boyd, M.	1,995 00	1928	Demers, J. W.	1,105 92
*1928	Brady, M.	171 77	1928	De Salaberry, R.	983 76
1929	Brault, J. S.	344 52	1929	Desmeules, H.	680 16
1926	Bray, J. L.	408 36	1926	Devlin, C. A.	1,000 23
1927	Brears, J. S.	505 80	*1926	De Young, G. H.	321 84
1928	Bremner, C. H.	136 80	*1928	Digby, Thos.	87 74
*1926	Brochu, J. W. L.	175 41	1925	Dixon, C.	493 08
1926	Brough, W. C.	1,823 28	1925	Dixon, J. G.	594 96
1925	Brown, E. M.	392 88	1925	Doherty, T. K.	2,319 96
1926	Brown, J. H.	615 24	1929	Donnelly, H. H.	519 35
1925	Brown, J. L.	521 16	1929	Dooley, M.	561 24
1926	Bruce, D. A.	3,118 44	1925	Dorian, G.	582 72
1927	Bryenton, S. O.	479 64	1928	Dorland, P. N.	582 60
*1928	Burgess, W. H.	150 12	1926	Doucet, R.	928 20
1929	Burnham, J. W.	463 92	1927	Dowling, E. W.	569 16
1925	Burns, W. P.	1,172 86	1928	Dowrie, D. C.	1,176 00
1928	Byrne, W. P.	709 92	1929	Doyle, B. J.	1,690 80
1925	Cameron, W. M.	1,092 24	*1926	Ducharme, J. P. L.	63 28
1926	Campbell, A. C.	2,863 92	1928	Duchesnes, N.	416 52
*1928	Campbell, D. D.	1,401 52	1926	Duncan, T.	2,520 00
1929	Campsall, N. M.	234 00	1925	Dunlevie, S. A.	1,600 56
1925	Canniff, W. H.	1,575 00	1928	Dunlop, W. J.	1,546 92
1928	Carleton, W. H.	1,608 24	1928	Dupuis, E.	424 56
1928	Carrothers, A.	1,638 00	1928	Durantel, S. L. E.	760 80
1928	Chamard, J.	3,181 68	1929	Durham, R. F.	1,392 96
1925	Chambers, C.	511 56	1926	Dussault, J. B.	1,081 44
1926	Chartrand, J. A.	453 96	1929	Drought, F. A.	1,207 92
1928	Cheatley, P.	1,189 92	1926	Dwyer, M. J.	592 32
1926	Cheney, W. H.	1,057 81	1929	Eakins, G. G.	635 16
1928	Chisholm, W. N.	1,193 40	1928	Eason, A. R.	909 85
1929	Choquette, S.	1,628 16	1928	Edwards, J. P.	831 48
1927	Church, I. D.	254 02	1925	Elliott, R. J.	948 48
1928	Churchouse, E.	1,470 00	1929	Elliott, T. H.	1,173 84
1928	Clark, G. A.	1,063 32	1929	Ellis, W. L.	655 56
1928	Clark, J. H.	1,299 60	1925	Everett, E. G.	1,253 64
1928	Clewlo, O. S.	2,564 28	1925	Fair, J. J.	1,386 00
1926	Cliff, W. W.	448 92	1928	Fairley, W. H.	454 20
1928	Cline, J. H.	1,523 99	1928	Fairweather, J. H.	2,541 00
1926	Cloakey, G. H.	518 04	*1929	Fallis, W. J.	520 38
1928	Collier, J. H.	632 16	1929	Ferrah, Wm. A.	419 76
1925	Connolly, E.	1,470 00	1928	Ferguson, F.	1,186 44
1929	Cook, H.	501 90	1926	Fielding, C. W. W.	1,333 44
1929	Cook, S. B.	1,200 60	1926	Filgiano, H. E. J.	1,134 00
1926	Coombs, J. S.	504 60	1925	Fitzgibbon, J. D.	2,142 00
1928	Copp, J. R.	1,186 44	1928	Flynn, E.	390 24
1928	Corbeil, Z.	756 72	1926	Foley, P.	1,088 16
*1929	Cormier, W. E.	310 56	1928	Foley, W. J.	675 24
1928	Costigan, T.	960 48	1926	Fowler, E. M.	280 80
1928	Coulter, Thos.	552 36	1924	Fraser, B. H.	3,780 00
1926	Craig, S.	406 44	1928	Fraser, M.	991 92
*1928	Crooke, G.	171 48	1928	Fraser, P. T.	1,040 88
1928	Croucher, R. A.	247 92	1928	Gagnon, Moise.	1,000 32
1926	Cuming, E. E.	400 44	1928	Gamble, E.	536 76
1928	Curran, M. A.	1,134 00	1928	Garrioch, J.	306 72
1928	Cuttle, H. G.	1,344 12	*1926	Gauthier, A.	545 40
1928	Daly, J. A.	949 44	1927	Geldart, O. A.	1,627 44
1929	Daoust, A.	237 84	1928	Genge, R. E.	1,158 48
1926	D'Aoust, I.	210 12	1928	Gibson, D. R.	1,309 92
1926	Davis, J. H.	711 72	1925	Gillmore, M. M.	491 64
1928	Dawe, H. R.	721 80	1926	Girard, P.	707 04
1927	Davy, R. A.	954 72	1926	Giroux, F. X.	983 40
1928	Day, J. B.	565 80	1925	Giroux, T. A.	1,260 00
1928	Deacon, F. L.	550 92	1929	Gleeson, W.	2,093 39

DEPARTMENT OF FINANCE

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 5	\$ cts.		SUPERANNUATION No. 5	\$ cts.
	<i>Annuities to Contributors</i>			<i>Annuities to Contributors</i>	
1928	Glover, W. J.....	3,990 00	1925	Kinsman, M. B.....	436 08
1928	Godfrey, E. H.....	1,490 16	1928	Kniewasser, A.....	545 05
1928	Goetz, G.....	466 56	1929	Labelle, L.....	312 96
1926	Gordon, A. H.....	993 96	*1928	Laberge, P.....	371 36
1926	Gordon, T. A.....	196 56	1928	Labonte, L.....	1,176 00
1928	Gosse, J. F.....	190 80	*1928	L'Africain, N.....	217 34
1928	Gouin, E.....	952 56	1928	Laidlaw, J. W.....	296 10
1928	Gould, H. J.....	2,645 04	1925	Lamanque, T.....	1,092 00
1929	Goulding, J. E.....	306 60	1926	Lamb, J.....	208 08
1928	Gravel, W.....	1,095 48	1929	Lancetot, J. M. A.....	903 96
1925	Greenfield, R.....	1,959 96	1924	Landriau, F. E.....	1,276 32
1928	Greer, Jas.....	1,649 64	1928	Lanthier, E.....	465 00
1925	Grenier, A.....	1,304 28	1928	Lanthier, J. E.....	526 56
1926	Grove, J.....	588 60	1928	Larue, C. H.....	475 08
1925	Guay, L. M.....	502 20	1926	Laschinger, A. G.....	377 88
1928	Guild, R.....	453 12	*1928	Laverriere, J.....	180 60
1926	Guillemette, J. E.....	1,308 96	1929	Lavigueur, F. X.....	493 92
1925	Guppy, H. J.....	1,470 00	1928	Leake, W. W.....	1,032 24
1928	Guy, R. M.....	1,388 28	1925	Learoyd, E. L.....	1,470 00
1928	Hall, C.....	532 32	*1928	Lee, J. R.....	31 26
1925	Hall, N. E.....	1,132 80	1926	Lessage, L. A.....	2,016 00
1929	Hamilton, Alex.....	759 48	1928	Lindsay, R. W.....	1,114 32
1928	Hamilton, C. E.....	260 16	1928	Lipsett, R.....	420 00
1925	Hancock, W.....	927 48	1928	Lock, H.....	580 08
1925	Hannan, W. H.....	242 64	1928	Lockhart, C. B.....	809 93
1925	Harding, S.....	916 44	*1928	Logan, R. J.....	211 36
1929	Harkness, G. C.....	790 92	1928	Long, J.....	375 83
1928	Harrison, F. E.....	3,195 48	1928	Lorange, O.....	1,614 60
1925	Hartley, H.....	748 80	1925	Lortie, A.....	1,102 44
1928	Hartley, R.....	1,011 12	1928	Lortie, J. A.....	553 08
1928	Harty, M. J.....	488 64	*1928	Lounds, C. M. R.....	1,244 76
1925	Hatch, W.....	1,596 00	1929	Loverin, F. McD.....	876 36
1928	Hawkins, J. R.....	284 90	1926	Low, J. G. M.....	777 24
*1925	Hegan, J. B.....	910 00	1927	Low, P. V.....	1,119 96
1925	Henry, M.....	231 00	1925	Lynch, W. J.....	2,772 00
*1926	Hetherington, H. A.....	229 50	1928	Lytle, S. B.....	1,275 48
1926	Hill, A.....	295 92	1928	Macdonald, C. A.....	806 52
1928	Hinds, M. A.....	1,119 96	1926	Macdonald, D. J.....	1,119 96
1928	Hodd, Frank.....	1,386 00	1929	Macdonald, Jas.....	560 76
1928	Hodgson, J.....	604 44	1925	Macdonald, W.....	652 08
1928	Holbrook, J. A.....	396 48	1927	Macdougall, J. I.....	310 56
1928	Holmes, R.....	1,494 84	1928	MacKellar, D.....	206 96
1928	Hood, T. A.....	1,504 92	1928	MacKenzie, D. C.....	775 44
1928	Horne, A. H.....	898 80	1925	MacKenzie, S. M.....	496 08
1928	Howe, H.....	166 32	1928	MacLachlan, J. M.....	1,780 44
1928	Hutchinson, D. A.....	772 41	1929	MacQueen, G. R.....	1,470 00
1928	Hutton, W.....	1,025 40	1928	Madill, T.....	201 72
1928	Inches, D.....	336 48	1926	Magee, C. W.....	882 00
1928	Ingall, E. D.....	2,985 24	*1929	Maitland, M. J.....	1,102 53
1928	Jamieson, J. W.....	950 04	1929	Malouin, L.....	606 76
1928	Jarvis, C. D.....	456 48	1928	Marineau, P. O.....	1,998 12
1928	Jeffery, W. H.....	1,506 96	1928	Marquette, E. J. M.....	303 36
1928	Jenkins, T.....	1,177 08	1925	Mathers, I. H.....	1,188 24
1928	Johnston, I.....	445 44	1925	Mathieu, J. O.....	922 32
1929	Johnston, S.....	974 27	1928	Meadows, A. H.....	1,186 44
1929	Jones, T. F.....	506 52	1928	Miller, M. A.....	1,157 52
1928	Joubert, A. A.....	351 36	1926	Miller, R. R.....	499 56
*1928	Juneau, Jos.....	418 80	1929	Mireault, H.....	624 36
1925	Kahala, J. J.....	1,379 28	1928	Mitchell, A.....	1,177 08
1926	Kane, W. J.....	1,490 40	1928	Moffett, D.....	375 00
1927	Keating, J. P.....	1,208 64	1926	Montgomery, J. D.....	324 00
1925	Kemeys-Tynte, A. P. M.....	1,082 64	1926	Montreuil, A. T.....	1,857 60
1928	Kennedy, E. T.....	403 92	1929	Moore, F. W.....	445 20
1928	Kenny, H. J.....	840 84	*1928	Moore, S. J.....	953 73
1926	Kidner, E.....	998 16	1928	Moranville, D. F.....	496 80

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Re- tired in	Name	Amount paid	Re- tired in	Name	Amount paid
	SUPERANNUATION No. 5	\$ cts.		SUPERANNUATION No. 5	\$ cts
	<i>Annuities to Contributors</i>			<i>Annuities to Contributors</i>	
1928	Morrison, J. A.....	427 92	1928	Payne, H. J.....	1,113 00
1926	Mouck, A. E.....	381 24	1926	Peake, T. B.....	1,459 20
1925	Moyer, P. J.....	318 72	1926	Pearson, S. M.....	421 08
1928	Mullan, J.....	558 36	1929	Peebles, Wm.....	1,421 04
1928	Murphy, P. J.....	961 80	1929	Peers, H. L.....	349 68
1928	Murray, J. A. F.....	506 88	1925	Pelletier, L. M.....	1,219 80
*1927	Murray, J. P.....	103 12	1928	Perrin, C. N.....	1,186 44
1928	Murray, M.....	166 32	1929	Perron, J. C.....	383 04
1928	Myrick, J.....	1,081 92	1928	Phair, L. B. C.....	1,369 56
1925	McAllan, W. J.....	524 52	1929	Pollock, W. C.....	1,006 20
1926	McCarey, Jos.....	1,932 00	1926	Preston, J. H.....	616 85
1928	McCharles, J.....	1,950 36	1929	Price, S. L.....	350 56
1929	McCoy, E. H.....	569 04	1928	Purtell, J. J.....	1,147 92
1925	McCreery, T. D.....	282 00	1925	Reed, C. C.....	1,287 96
1926	McCullough, W. S.....	233 52	1928	Reid, A. L.....	1,166 16
1925	McDonald, M.....	1,596 00	1926	Reiffenstein, J. H.....	1,807 55
1926	McDougall, Alex.....	386 52	1926	Rennie, E. H.....	1,224 96
1928	McDougall, Allan.....	435 12	1925	Richard, L. N.....	1,470 00
1928	McDougall, J. A.....	1,296 36	*1925	Richardson, W. H.....	1,227 24
*1928	McElroy, P. J.....	342 72	1925	Ring, J. W.....	1,302 00
1929	McFarland, Wm.....	1,665 96	1929	Riopel, J.....	593 06
1928	McFarlane, A.....	461 28	1928	Rioux, J. B.....	376 92
1927	McGillivray, H.....	1,470 00	1926	Ritchie, J. H.....	1,327 56
1926	McGrath, M. J. T.....	367 44	1928	Rivet, A.....	470 52
1925	McInerney, L.....	1,071 00	1928	Rivier, C. E.....	619 56
1928	McIntosh, D.....	148 20	1928	Riviere, J.....	207 72
1929	McIntosh, M. C.....	514 36	1926	Robert, O. P.....	230 04
1926	McKendrick, D.....	2,071 92	1928	Roberts, L. H.....	1,186 44
1926	McKenzie, H. D. L.....	263 16	1928	Robertson, A. B.....	252 60
1928	McLaughlin, A.....	1,208 16	1925	Robertson, A. R.....	1,115 16
1928	McLean, A. A.....	1,309 92	1928	Robertson, A. S.....	853 45
1928	McLennan, J.....	329 48	1928	Robineau, F.....	564 60
1925	McMinn, J. D.....	218 88	1926	Robinson, F. P.....	543 12
1928	McMullin, A.....	1,186 44	1928	Rolland, M. L.....	391 56
1925	McNeely, J.....	1,428 00	*1925	Rowan, E.....	311 48
1925	McPherson, H. B.....	482 28	1928	Rowan, W. E.....	817 56
1929	McQuire, G. C.....	2,764 84	*1925	Roy, F. A.....	27 55
1926	Nash, A. F.....	1,197 36	*1928	Ruggles, J. E.....	760 20
1926	Neads, M. E.....	460 79	1928	Sanders, E. L.....	2,528 28
1928	Nearing, J.....	593 76	1928	Sandilands, J.....	294 72
1928	Neelands, H. G.....	328 68	1928	Saunders, G. H.....	472 92
1927	Neelin, F. G.....	1,024 92	1927	Sauriol, A.....	1,596 00
1928	Neely, F. S.....	303 60	1927	Scott, J. C.....	1,806 00
1925	Niven, T. D.....	526 68	*1928	Scullion, W. J.....	600 00
1926	Norman, H. F.....	494 78	1928	Selleck, E. J.....	338 88
1927	Northrup, W. T.....	222 48	1929	Senecal, P.....	565 80
1928	Nuttall, G. A.....	339 96	1926	Sheppard, N. B.....	2,016 00
1926	Oakes, J.....	544 08	1928	Shields, E. E.....	991 08
1925	O'Brien, J.....	1,147 92	1928	Sims, T. C.....	580 56
1927	O'Flaherty, E.....	769 32	1925	Sinclair, C. McL.....	1,140 96
1929	O'Grady, D. J.....	1,539 96	1929	Sinclair, Jas.....	744 00
1928	O'Halloran, G. F.....	3,774 60	1928	Skinner, W. H.....	1,946 34
1928	O'Neill, A. P.....	598 56	1926	Sladen, A. F.....	4,200 00
1928	Osterhaut, H. G.....	815 76	1929	Smith, Duncan.....	339 24
1925	Ostiguy, L. R.....	910 32	1928	Smith, Frank.....	676 32
1929	Ovens, T.....	341 77	1925	Smith, H. I.....	1,318 32
1928	Panter, G. C.....	402 48	1928	Smith, H. T.....	572 52
1926	Parmelee, J. D.....	2,520 00	1926	Smith, J.....	1,061 40
1928	Parker, A.....	1,617 00	1928	Smith, John.....	227 40
1929	Parkinson, N. F.....	1,279 92	1926	Smith, J. H.....	102 72
1928	Parkman, E.....	322 56	*1926	Smith, R. E.....	200 66
1929	Pariseau, J. A.....	379 68	1928	Snow, A. T.....	1,726 56
1925	Patterson, W. L.....	1,042 92	1926	Sole, F. W.....	328 68
1926	Pattison, T. F.....	1,139 16	1929	Songhurst, G. J.....	357 12
1925	Payne, A. N.....	2,169 96	1928	Sorley, J. S.....	1,675 32
			1926	Sparks, W.....	2,016 00

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Died in	Name	Amount paid	Died in	Name	Amount paid
	SUPERANNUATION No. 5	\$ cts.		SUPERANNUATION No. 5	\$ cts.
	<i>Annuities to dependents of deceased employees</i>			<i>Annuities to dependents of deceased employees</i>	
1928	Buckley, T. J.	441 72	1928	Eagleson, J. S.	504 00
1929	Burgess, W. H.	112 56	1926	Edge, V. J.	748 68
1928	Burke, R. J.	277 32	1928	Egglefield, L.	258 84
1928	Burns, L.	214 32	1926	Eldridge, J. M.	258 50
1927	Butler, D. J.	179 95	1925	Elliott, F.	43 12
1928	Butler, T.	326 88	1925	Evans, P. H.	181 80
1925	Campbell, H. S.	525 00	1926	Fafard, O. V.	995 28
1929	Campbell, D. D.	198 51	1928	Fagan, M. H.	314 40
1925	Carey, P.	582 36	1929	Fallis, W. J.	194 24
1927	Carlin, I.	97 90	1928	Farnworth, F. H.	279 24
1926	Carroll, J. F.	417 84	1925	Fawcett, E. L.	334 32
1926	Carruthers, F. C.	476 88	1925	Featherston, J. E.	1,027 68
1927	Carter, B.	273 36	1926	Fee, R.	213 24
1929	Carter, E. E.	276 60	1928	Filson, H. K.	189 84
1928	Cartier, H. J.	243 22	1928	Fink, G. L.	128 76
1929	Cartwright, T. A.	305 82	1925	Finlayson, R.	547 08
1925	Chambers, E. J.	940 56	1926	Fiset, A.	167 44
1928	Chapman, J. B.	169 20	1925	Fisher, W. D.	270 01
1928	Charlston, J. L.	269 39	1928	Fixter, J.	894 24
1926	Charlton, W.	152 88	1927	Flaglor, J. S.	557 28
1926	Chevrier, F. L.	787 85	1928	Flanagan, P.	81 76
1928	Clyma, J. H.	363 72	1924	Flannery, P. J.	535 56
1928	Code, A.	532 60	1926	Forbes, J.	69 84
1928	Connor, G. K.	186 84	1928	Force, E. A.	416 99
1925	Copeland, R. E.	185 88	1928	Fowler, A.	270 48
1925	Coppleman, S.	127 92	1926	Fraser, D.	420 60
1928	Corbeille, J. O.	387 35	1927	Fraser, F. R.	255 24
1928	Corriveau, A. F. J.	337 20	1928	Fraser, S.	139 56
1928	Cory, T.	513 96	1929	Fredenburg, H. J.	290 62
1925	Côté, L.	692 64	1926	Frost, J. A.	236 60
1928	Covey, A.	134 88	1928	Gagnon, J. T. H.	352 44
1928	Cowling, A. J.	170 64	1928	Galipeau, I.	288 48
1928	Cross, A. E.	767 91	1926	Gamache, J. M.	611 72
1929	Crooke, G.	182 60	1929	Gareau, A.	481 07
1928	D'Aigle, D. I.	284 40	1928	Gaskin, Thos.	360 36
1928	Dares, H. B.	295 44	1926	Gaudin, T.	192 83
1928	Davies, F. W.	388 80	1925	Gauthier, G. H.	305 88
1928	Davies, W. B.	583 57	1925	Genest, O. A.	255 84
1928	Davis, J. H.	335 72	1926	Genest, P. F. X.	604 98
1926	Dawson, H. J.	919 50	1925	George, A. F.	188 81
1928	Demers, L. J.	552 12	1926	Gerald, C.	469 58
1925	Dennis, J. A.	422 88	1928	Gill, W. T.	234 39
1928	Depocas, E.	246 60	1929	Gillies, A.	855 40
1928	Desautels, M. J.	93 60	1927	Gillespie, D.	352 80
*1928	Despard, A. W.	897 26	1928	Gillis, A. D.	167 88
1929	De Young, G. H.	72 99	1928	Godin, C. H.	761 16
1928	Dion, T.	156 96	1928	Good, Joseph.	318 36
1928	Dionne, J. L. A.	259 68	1928	Gorman, A. M.	382 80
1929	Dionne, L. N. A.	199 76	1926	Gould, W.	303 60
1926	Dixon, J.	212 16	1928	Goyette, H.	146 64
1928	Donaldson, J. C.	48 89	1927	Graham, L. D.	389 40
1925	Dorsey, J. J.	624 84	1928	Graham, M. H.	655 56
1928	D'Orsonnens, A.	664 50	1926	Grant, G.	162 84
1926	Dowd, E. C.	260 92	1926	Gribble, F. J.	193 92
1926	Doyle, D. J.	478 92	1926	Grier, J. W.	242 04
1927	Drysdale, W.	448 80	1928	Groulx, J. R. H.	193 96
1928	Dubé, W.	326 04	1928	Hair, H.	257 88
1928	Dubuc, J. P. E.	163 90	1929	Halladay, A. P.	657 61
1928	Ducharme, G.	100 08	1927	Hansen, H.	228 98
1929	Ducharme, J. P. L.	365 97	1928	Harney, W. T.	244 92
1925	Duck, A. R. B.	94 32	1925	Harris, G. A.	104 13
1928	Dulude, L.	556 80	1928	Harris, W. F.	319 20
1928	Dumas, J. T. F.	292 95	1926	Hartwell, G. M.	299 20
1929	Dumbrille, R. W.	414 89	1928	Harvey, G. H.	111 50
1928	Dunne, J. P.	615 84	1926	Haslam, G. S.	171 12
1928	Dunsmore, T. E.	264 60	1925	Haughton, J.	205 80

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—Continued

Died in	Name	Amount paid	Died in	Name	Amount paid
	SUPERANNUATION No. 5	\$ cts.		SUPERANNUATION No. 5	\$ cts.
	<i>Annuities to dependents of deceased employees</i>			<i>Annuities to dependents of deceased employees</i>	
1926	Hawkins, T. T.	481 68	1928	Littler, N.	480 12
1926	Haynes, A. T.	259 92	1929	Logan, R. J.	51 51
1926	Heavers, T.	454 54	1925	Logan, W. J.	318 48
1929	Hegan, J. B.	350 16	1928	Loughran, F.	332 40
1928	Henley, W. C.	214 08	1926	Love, R. A.	187 36
1927	Hennessey, G. F.	504 00	1928	Lovett, A.	1,423 35
1929	Hetherington, H. A.	41 54	1926	Lower, W. J.	101 40
1929	Hetherington, F. W.	475 91	1928	Lunan, J. E.	458 76
1926	Hillock, P. J.	309 48	1928	Lussier, J. H.	148 72
1928	Holland, W. J.	530 64	1926	Lutz, H.	256 08
1928	Hudon, M. L. E.	1,194 72	1926	Macdonald, A.	185 28
1928	Hugg, Claire.	493 08	1928	MacIntyre, A. C.	47 79
1928	Huggins, W. H.	602 64	1928	Mackenrot, W. H.	320 88
1928	Hughes, J. M.	384 36	1929	Macelland, W. E.	1,162 51
1928	Hughes, P. A.	543 72	1926	MacMahon, M. J.	280 68
1928	Hurst, L. B.	456 84	1925	MacMartin, L. J.	237 27
1928	Hutchinson, D. L.	622 68	1927	MacRostie, N. H.	194 28
1928	Hynes, M. E.	504 00	1928	Maitland, F. P. A.	85 56
1926	Irwin, W. N.	115 08	1930	Maitland, M. J.	40 25
1928	Isaac, J. S.	352 33	1928	Malcolm, W. J.	106 20
1924	Ivey, W. J.	398 28	1928	Mallette, L.	201 48
1925	Jack, S. R.	283 44	1928	Malone, P. J.	547 17
1928	Jackson, O.	187 44	1928	Manhard, L. E.	259 20
1927	Jarvis, A. L. F.	1,680 00	1925	Marchand, A. H.	184 80
1928	Johnson, W. E.	281 93	1929	Martineau, J.	75 02
1928	Johnston, C.	197 40	1928	Mather, A. P.	271 04
1928	Johnston, J. H.	906 36	1927	Matheson, T. G.	92 88
1926	Jones, F.	227 34	1925	Mathieu, L. J.	1,183 00
1925	Jordan, J. E.	86 64	1928	Matte, G.	225 48
1928	Joss, D.	117 80	1928	May, O.	656 40
1929	Juneau, J.	146 60	1928	Mayer, J. A. A.	638 22
1925	Kane, M.	329 16	1924	Meiklejohn, H. J.	208 53
1926	Kavanagh, F.	263 64	1926	Merrigan, J. A.	228 12
1928	Keeler, R. M.	425 40	1925	Meyer, F. W.	325 80
1928	Keigan, D. G.	301 60	1925	Middleton, G.	363 60
1929	Kenny, A. O.	414 34	1929	Miller, R.	321 08
1928	Kidd, R. N.	233 76	1929	Milliken, J. B.	630 73
1928	Kidner, J. H.	470 60	1929	Molony, E. P.	479 90
1929	Kirby, J. A.	306 22	1928	Monette, T.	363 36
1924	Kirk, F.	636 84	1928	Money, E. W.	252 00
1926	Kirkpatrick, J. R.	191 76	1930	Moore, S. J.	133 33
1928	Kirkpatrick, R. A.	616 00	1926	Morden, J. R.	389 34
1928	Kirkpatrick, W. L.	143 40	1926	Morden, W. R.	209 28
1928	Labelle, J. A.	49 00	1929	Moreau, L. P.	651 74
1928	Lachance, J. O.	665 06	1928	Morris, W. E.	367 92
1926	Laflamme, J. K.	842 64	1928	Morton, G.	272 64
1929	L'Africain, N.	290 00	1928	Moule, W. J.	449 40
1928	Lalonde, J. M.	367 44	1926	Mowat, A.	588 00
1929	Lamb, W.	246 72	1928	Mundell, E.	152 28
1924	Lang, J. T. C.	221 28	1926	McCann, B. C.	533 40
1926	Langevin, E. V.	228 00	1928	McCourt, J. J.	107 88
1926	Lapointe, J. A.	167 64	1928	McDonald, A. B.	640 44
1929	Laporte, J.	297 28	1925	McDougall, P.	316 56
1928	Laprise, E.	57 72	1929	McElroy, P. J.	546 45
1925	Larkin, J. M.	679 20	1928	McEvoy, S. T.	420 24
1927	Larue, J. N.	441 00	1928	McLaughlin, H.	661 44
1925	Larue, J. L. H.	525 00	1925	McLay, J.	176 04
1926	Latour, J. L.	390 36	1928	McLean, G. F.	157 68
1925	Learn, A. J.	208 20	19 8	McLeod, John A.	187 32
1926	Lecourt, C. E.	615 24	1928	McLeod, S.	205 56
1929	Lee, J. R.	83 39	1928	McNab, G. F.	237 38
1925	Lelièvre, S.	808 44	1925	McNeill, M. P.	308 04
1926	Lemieux, F. X.	367 44	1925	McPhee, J. E.	348 12
1928	Lewis, H. B.	365 75	1928	McQuarrie, D. J.	490 80
1926	Lipsett, W. S.	315 00	1926	Newton, T.	143 04
1923	Lister, D. T.	245 04	1928	Nisbet, J.	181 44

Appendix No. 10—Continued

AMOUNTS paid as superannuation during the year ended March 31, 1930, to employees retired prior to March 31, 1929—*Concluded*

Died in	Name	Amount paid	Died in	Name	Amount paid
	SUPERANNUATION No. 5	\$ cts.		SUPERANNUATION No. 5	\$ cts.
	<i>Annuities to dependents of deceased employees</i>			<i>Annuities to dependents of deceased employees</i>	
1929	Noel, S. H.	250 27	1928	Stanford, E.	192 62
1928	Nuttall, W. A.	420 72	1929	Stevens, C.	191 52
1927	O'Brien, P. J.	873 36	1925	Stevenson, J. S.	729 84
1928	Ogletree, A.	176 80	1929	Stewart, J. D.	238 31
1928	O'Sullivan, E.	229 84	1925	Stewart, W. J.	1,680 00
1928	Ogilvie, E. F.	353 86	1928	Stock, J. J.	522 00
1926	Orr, R. D.	289 92	1927	Strachan, A.	442 44
1928	Painchaud, C. F.	663 60	1925	Sturgess, A. W.	268 44
1926	Palen, A. F.	483 00	1925	St. Denis, J.	597 36
1925	Pansera, A.	221 16	1928	Tague, H. O.	241 56
1926	Paradis, J.	346 68	1925	Tansey, T. P.	446 04
1926	Parent, V. A.	328 08	1927	Taschereau, E. R. A.	731 16
1926	Partridge, G.	330 60	1928	Taylor, C. H.	269 16
1927	Paterson, A. C.	1,260 00	1929	Teno, A. C.	591 19
1928	Patterson, H. W.	496 80	1928	Terry, A. E.	306 86
1928	Pearce, R.	423 24	1929	Thompson, E.	140 35
1928	Pearce, W. J. H.	337 68	1928	Thompson, H.	634 56
1925	Peters, D. L.	239 76	1929	Todd, A. H.	652 41
1928	Poissant, I.	411 12	1925	Trafton, L.	191 28
1926	Pope, Sir Joseph.	2,799 96	1926	Tremaine, A. de B.	699 96
1928	Poulin, C. E.	282 84	1928	Tremblay, J.	630 60
1928	Pouliot, J. J.	356 44	1928	Tremblay, J. P.	217 56
1928	Powell, H. H.	271 92	1928	Trudeau, H.	264 99
1928	Prairie, S.	340 80	1928	Trudeau, S.	85 03
1926	Pretty, J. M.	799 92	1926	Vaughan, J. H.	397 68
1926	Quinn, T.	318 50	1927	Veats, F.	353 35
1926	Regan, P.	367 44	1924	Vezina, D.	235 68
1926	Reid, J.	285 24	1928	Villeneuve, A.	169 20
1928	Renaud, J. D. U.	289 56	1925	Walker, D. J.	9 59
1926	Renouf, J.	187 44	1926	Wallis, C. J.	306 00
1926	Reynard, M. C.	798 00	1926	Ward, L. H.	144 87
1928	Roberge, A.	280 80	1928	Ware, J. A.	449 76
1928	Roberts, J. H.	761 52	1928	Warren, R. V.	712 08
1926	Robertson, D.	417 96	1928	Waterfield, C. W.	232 56
1928	Robins, F. J.	165 12	1928	Webb, S. A.	216 10
1928	Robitaille, E.	144 96	1926	Webster, F. T.	119 42
1925	Rogers, D. T.	284 04	1928	Webster, Geo.	267 36
1929	Rolston, E.	168 86	1928	Welch, R.	111 84
1926	Rose, L. F.	380 88	1928	Westman, T.	697 52
1928	Rose, W. H.	582 12	1926	Whalley, W.	243 36
1928	Ross, J. D.	357 50	1928	Wheaton, H. B.	388 68
1928	Ross, R. H.	308 88	1925	White, J.	236 94
1929	Roy, F. A.	203 69	1928	White, James.	2,100 00
1926	Royal, J. A.	744 24	1926	Whitelaw, G.	278 04
1930	Ruggles, J. R.	104 22	1926	Whittaker, E. J.	213 40
1929	Rutland, F. E.	234 34	1927	Wibberley, J. A.	241 32
1928	Samson, J. E. A.	986 16	1928	Wickens, F.	135 96
1928	Scarf, W. S., Sr.	237 84	1928	Wiles, R. H.	157 32
1925	Scott, Thos.	133 44	1928	Williams, G. T.	190 20
1926	Scott, W.	130 64	1926	Williams, J. H.	121 86
*1927	Sealy, J. C.	41 44	1924	Williamson, J. G.	165 00
1928	Sevigny, J. E.	229 03	1927	Wilson, A. E.	281 90
1925	Shephard, F. B.	233 58	1929	Wilson, R. H.	379 80
1928	Shipman, C. W.	108 60	1925	Winter, H. G.	367 44
1925	Sigman, G. A.	98 40	1925	Wise, F. A.	1,477 44
1928	Skelly, J. J.	1,067 28	1926	Wismer, D. L.	170 28
1926	Smart, T. A.	342 00	1925	Witzig, F. X.	446 28
1926	Smith, A.	172 68	1929	Wren, J. T.	821 40
1928	Smith, Albert E.	314 52	1929	Wright, D. I.	304 25
1929	Smith, R. R.	291 25	1926	Wright, J. C.	179 52
1927	Smith, W. B.	315 00	1928	Wright, R.	323 31
1928	Somers, F.	483 12	1928	Worrel, J.	218 64
1928	Southall, F.	309 24	1926	Young, A.	315 72
1928	Speedy, L. G.	287 76	1925	Young, T. T.	274 34
1925	Spicer, A.	312 65			
1929	Stanley, A. T.	43 11			165,643 45

Appendix No. 10—Continued

ALLOWANCES granted as Superannuation and amounts paid to employees retired during the year ended March 31, 1930

Name and nature of service	Cause of retirement	Age at retirement	Number of years service	Number of years to count	Salary at time of retirement	Average salary	Annual allowance	Amount paid during the fiscal year
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
SUPERANNUATION FUND No. 1								
Boyd, Wm. S., Customs-Excise Enforcement Officer, National Revenue.....	Age.....	72	53	.....	660 00	641 67	449 17	411 73
Cameron, D. W., Chief Accountant, House of Commons.....	Age.....	67	37	.....	4,000 00	3,966 67	2,776 67	1,388 28
de Rostaing, Emile, Principal Postal Clerk, Post Office.....	Ill health.....	54	36	.....	2,370 00	2,370 00	1,639 00	1,244 25
Hanley, W. R., Principal Clerk, Post Office.....	Age.....	70	46	.....	2,400 00	2,383 33	1,668 33	695 10
Hicks, W. H., Customs-Excise Examiner, National Revenue.....	Age.....	74	49	.....	1,740 00	1,730 00	1,211 00	504 55
O'Reilly, A. J., Senior Examiner of Companies, Insurance.....	Age.....	63	44	.....	4,620 00	4,592 79	3,214 95	2,186 49
Vincent, F. P., Senior Postal Clerk, Post Office.....	Ill health.....	51	42	.....	2,040 00	2,083 33	1,423 33	237 22
Wilkins, Joseph, Statistician, Trade and Commerce.....	Age.....	72	45	.....	3,000 00	2,980 00	2,086 00	1,042 98
Woods, Wm. P., Investigator of Drawback Claims, National Revenue.....	Age.....	65	41	.....	2,640 00	2,520 00	1,764 00	2,352 00
							16,252 45	10,062 60
SUPERANNUATION FUND No. 2								
*McDonald, J. R., Sub-Collector, National Revenue.....	Age.....	74	32	.....	410 00	390 00	249 60	187 20
McKee, Wm., Railway Mail Clerk, Post Office.....	Age.....	70	39	.....	1,800 00	1,795 21	1,256 65	300 64
							1,506 25	487 84
SUPERANNUATION FUND No. 5								
Aiken, A., Sub-Collector, National Revenue.....	Age.....	70	12½	12½	1,740 00	1,666 68	430 56	92 59
Allen, J. C., Customs Appraiser, National Revenue.....	Age.....	67	30	30	2,700 00	2,421 00	1,452 60	968 40
Alton, H., Oiler, Railways and Canals.....	Age.....	70	10½	10½	1,440 00	1,415 23	285 40	95 12
Anderson, J. H., Special Customs and Excise Officer, National Revenue.....	Age.....	74	14½	14½	2,160 00	2,089 55	609 45	285 02
Baby, W. A. D., Collector of Inland Revenue, National Revenue.....	Age.....	71	52½	35	3,240 00	3,201 33	2,240 93	2,166 23
Bailey, John, Sub-Collector, National Revenue.....	Age.....	73	34½	34½	2,880 00	2,580 00	1,784 50	1,874 20
Bancroft, C. D., Veterinary Inspector, Agriculture.....	Age.....	71	21½	21½	2,520 00	2,453 45	1,071 34	827 24
Bancroft, J., Mail Porter, Post Office.....	Age.....	63	10½	10½	1,500 00	1,461 00	304 38	126 80
*Banks, John, Sub-Collector, National Revenue.....	Ill health.....	66	17	17	2,040 00	1,972 00	670 48	167 61
Barnhardt, A., Regulating Weir Attendant, Railways and Canals.....	Age.....	70	16½	13½	1,110 00	1,103 81	296 19	24 68

Barnstead, W. L., Supervising Immigration Inspector, Immigration and Colonization.....	73	26 $\frac{1}{2}$	2,880 00	2,733 35	1,471 45	205 02
Bartlett, E. E., Clerk, Grade 4, Public Works.....	75	24 $\frac{1}{2}$	1,920 00	1,862 78	906 55	282 67
Bissett, J., Fireman, Public Works.....	70	14 $\frac{1}{2}$	1,380 00	1,357 17	404 89	154 08
Blake, A. C., Senior Postal Clerk, Post Office.....	66	30 $\frac{1}{2}$	2,040 00	2,021 50	1,415 05	654 27
Blyth, W. S., Inspector, Railway Safety Apparatus, Railways and Canals.....	68	22	3,120 00	3,032 00	944 97	737 38
Bonneville, L. M., Mail Porter, Post Office.....	62	23 $\frac{1}{2}$	1,440 00	1,155 50	338 95	310 64
Bourassa, C., Asst. Steam Power Plant Engineer, Public Works.....	70	23 $\frac{1}{2}$	1,680 00	1,501 74	410 87	11 04
Bourdon, M., Customs-Excise Examiner, National Revenue.....	73	25 $\frac{1}{2}$	1,740 00	1,713 00	873 63	218 40
Bournot, S. P., Postal Clerk, Post Office.....	38	17 $\frac{1}{2}$	1,740 00	1,683 00	586 24	341 95
Bousquet, P., Mail Porter, Post Office.....	70	16	1,500 00	1,470 00	470 40	235 20
Bown, E. A., Sub-Collector, National Revenue.....	60	23 $\frac{1}{2}$	1,380 00	1,345 00	641 12	587 62
Bowen, A. J., Inspector of Agencies, Indian Affairs.....	75	22	2,400 00	2,330 65	1,025 49	912 39
Boyd, W. Mail Porter, Post Office.....	63	17 $\frac{1}{2}$	1,500 00	1,469 80	516 88	215 35
Bradley, N. S., Senior Postal Clerk, Post Office.....	65	35 $\frac{1}{2}$	2,040 00	2,003 33	1,402 33	1,285 35
Brymer, W. S., Customs-Excise Enforcement Officer, National Revenue.....	59	23 $\frac{1}{2}$	660 00	625 00	175 00	131 22
Bryson, M. N., Sub-Collector, National Revenue.....	59	24	1,740 00	1,704 23	818 03	802 01
Bulger, I., Cashier and Computing Clerk, National Revenue.....	74	24 $\frac{1}{2}$	2,040 00	1,982 67	964 90	294 80
Bulger, F. A., Lightkeeper, Marine.....	72	22 $\frac{1}{2}$	1,166 00	1,075 58	478 63	338 34
Burkitt, J., Immigration Inspector, Immigration and Colonization.....	65	15 $\frac{1}{2}$	1,800 00	1,705 60	406 50	392 89
Bushby, E. S., Chief Inspector, National Revenue.....	60	31 $\frac{1}{2}$	5,040 00	4,968 00	3,096 72	3,096 72
Carnahan, G. B., Fruit and Vegetable Inspector, Agriculture.....	60	11 $\frac{1}{2}$	1,980 00	1,602 79	363 30	363 24
Carrothers, J. A., Customs-Excise Examiner, National Revenue.....	47	16 $\frac{1}{2}$	1,740 00	1,705 00	551 28	505 34
Charters, J., Letter Carrier, Post Office.....	70	43 $\frac{1}{2}$	1,500 00	1,485 00	1,039 50	779 58
Chasse, J. A., Junior Departmental Solicitor, Public Works.....	70	39 $\frac{1}{2}$	3,360 00	3,294 45	1,993 14	1,457 31
Clemens, H. U., Postal Clerk, Post Office.....	70	25 $\frac{1}{2}$	1,620 00	1,595 00	813 45	67 78
Coffey, J., Senior Postal Clerk, Post Office.....	65	43 $\frac{1}{2}$	2,040 00	2,003 33	1,402 33	1,285 46
Cooney, P. J., Senior Customs-Excise Examiner, National Revenue.....	65	42 $\frac{1}{2}$	1,920 00	1,910 00	1,337 00	668 46
Cooper, C. E., Caretaker, Public Works.....	60	16 $\frac{1}{2}$	1,380 00	1,358 67	287 59	102 23
Corruth, J. C., Supervising Immigration Inspector, Immigration and Colonization.....	73	20 $\frac{3}{4}$	1,920 00	1,848 36	748 59	533 16
Corp. W., Senior Postal Clerk, Post Office.....	66	36 $\frac{1}{2}$	2,040 00	2,020 00	1,414 00	706 98
Coulter, A. F., Railway Mail Clerk, Post Office.....	68	46 $\frac{1}{2}$	1,800 00	1,795 00	1,256 50	314 10
Crevier, S. E., Customs-Excise Examiner, National Revenue.....	60	27 $\frac{1}{2}$	1,740 00	1,714 57	951 59	113 27
Crichton, G., Cleaner and Helper, Public Works.....	68	11 $\frac{1}{2}$	1,200 00	1,155 00	269 50	202 05
David, T., Special Excise, National Revenue.....	72	29 $\frac{1}{2}$	2,160 00	2,107 16	1,253 76	252 77
Davis, M. R., Steamship Inspector, Marine.....	67	28 $\frac{1}{2}$	2,800 00	2,808 00	1,586 52	1,586 52
Demers, J. E., Customs-Excise Examiner, National Revenue.....	53	12 $\frac{1}{2}$	1,740 00	1,706 00	403 75	336 40
Dempsey, J. H. C., Postal Clerk, Post Office.....	66	42 $\frac{1}{2}$	1,740 00	1,723 33	1,206 33	1,005 20
Desjardes, B., Lockman, Railways and Canals.....	63	11 $\frac{1}{2}$	1,110 00	877 30	198 85	10 69
Dickson, W. H., Parliamentary Reporter, House of Commons.....	67	22	3,480 00	3,360 00	1,478 40	985 60
Donovan, J. M., Senior Postal Clerk, Post Office.....	67	29 $\frac{1}{2}$	2,040 00	1,980 00	1,155 00	577 50
Dorval, I., Clerk, Grade 2, Post Office.....	42	18 $\frac{1}{2}$	1,380 00	1,328 64	491 60	68 75
Dorval, A. J., Postal Clerk, Post Office.....	70	35	1,740 00	1,712 00	1,198 40	399 44
Drolet, A., Sub-Collector, National Revenue.....	72	22 $\frac{1}{2}$	1,140 00	1,105 00	1,499 09	457 49
Dumond, P. E., Senior Customs-Excise Examiner, National Revenue.....	70	25 $\frac{1}{2}$	1,920 00	1,888 00	978 61	652 40

DEPARTMENT OF FINANCE

Appendix No. 10—Continued

ALLOWANCES granted as Superannuation and amounts paid to employees retired during the year ended March 31, 1930—Con.

Name and nature of service	Cause of retirement	Age at retirement	Number of years service	Number of years to count	Salary at time of retirement		Average salary		Annual allowance		Amount paid during the fiscal year	
					\$	cts.	\$	cts.	\$	cts.	\$	cts.
SUPERANNUATION FUND No. 5—Continued												
Dumont, O., Senior Postal Clerk, Post Office.....	Ill health.....	62	41 ⁹ / ₁₂	35	2,040 00		2,003 33		1,402 33		1,285 46	
Ellis, F. T., Clerk, Grade 2, Interior.....	Ill health.....	51	24 ¹¹ / ₁₂	24 ¹¹ / ₁₂	1,380 00		1,353 98		674 73		618 42	
Elsom, T. R., Postal Clerk, Post Office.....	Ill health.....	61	17 ¹¹ / ₁₂	17 ¹¹ / ₁₂	1,620 00		1,595 00		571 54		47 62	
Emerson, J., Inspector, Postal Service, Post Office.....	Ill health.....	58	39 ³ / ₁₂	35	3,240 00		3,200 00		2,240 00		1,119 96	
Evans, W. J., Caretaker, Public Works.....	Age.....	71	17 ⁹ / ₁₂	10 ⁹ / ₁₂	1,200 00		1,184 61		248 77		14 71	
Fenwick, W., Collector, National Revenue.....	Age.....	73	18 ¹¹ / ₁₂	18	2,500 00		2,500 00		900 00		31 45	
Ferguson, H. S., Railway Mail Clerk, Post Office.....	Age.....	70	39 ⁹ / ₁₂	35	1,800 00		1,772 52		1,240 76		360 20	
Fitzpatrick, J. T., Cashier and Computing Clerk, National Revenue.....	Age.....	69	18 ¹ / ₁₂	18 ¹ / ₁₂	2,040 00		1,926 00		696 57		58 04	
Fleming, M. J., Bridgmaster, Railways and Canals.....	Age.....	73	14 ¹¹ / ₁₂	14 ¹¹ / ₁₂	1,200 00		1,190 00		353 03		58 82	
Fleming, W. H., Lockmaster, Railways and Canals.....	Age.....	72	40 ¹¹ / ₁₂	35	1,305 00		1,262 00		883 40		368 05	
Forrest, C. G., Messenger, National Defence.....	Ill health.....	58	30 ⁹ / ₁₂	30 ⁹ / ₁₂	1,140 00		977 23		589 60			
Forrest, G., Customs-Excise Examiner, National Revenue.....	Age.....	69	29 ³ / ₁₂	29 ³ / ₁₂	1,740 00		1,704 93		997 38		919 75	
Fraser, R. H., Right of Way Agent, Railways and Canals.....	Age.....	69	25 ⁹ / ₁₂	25 ⁹ / ₁₂	4,920 00		4,870 45		2,451 46		158 15	
*Gaudet, A., Senior Customs and Excise Clerk, National Revenue.....	Age.....	66	26 ⁹ / ₁₂	26 ⁹ / ₁₂	2,220 00		1,984 00		1,051 52		175 24	
Gazey, J., Postal Clerk, Post Office.....	Age.....	67	35 ¹¹ / ₁₂	35	1,740 00		1,720 00		1,204 00		1,203 96	
Germain, C., Superintendent of Mails, Post Office.....	Ill health.....	61	38 ¹¹ / ₁₂	35	3,000 00		2,880 00		2,086 00		1,042 98	
Gibson, H., Clerk, Grade 3, National Defence.....	Age.....	70	10 ⁹ / ₁₂	10 ⁹ / ₁₂	1,680 00		1,637 80		343 94		173 87	
Godreau, J. P. J., Letter Carrier, Post Office.....	Ill health.....	29	11 ⁹ / ₁₂	11 ⁹ / ₁₂	1,500 00		1,475 00		329 42			
Godwin, L. A. W., Immigration Guard, Immigration and Colonization.....	Age.....	73	17 ⁹ / ₁₂	17 ⁹ / ₁₂	1,260 00		1,250 89		437 81		66 44	
Grant, J. G., Postal Clerk, Post Office.....	Age.....	67	47	35	1,740 00		1,721 67		1,305 16		1,104 73	
Grigor, R. W., Collector, National Revenue.....	Abolition of office.....	62	22 ¹¹ / ₁₂	22 ¹¹ / ₁₂	1,920 00		1,880 00		830 33		761 09	
Halkett, A., Associate Zoologist, Fisheries.....	Age.....	75	51 ⁹ / ₁₂	35	3,420 00		3,403 33		2,382 33		794 08	
Harrison, D. K., Sub-Collector, National Revenue.....	Age.....	72	21 ⁹ / ₁₂	21	1,740 00		1,714 64		720 15		21 43	
Harris, S. T. H., Customs Appraiser, National Revenue.....	Age.....	70	39 ¹¹ / ₁₂	35	2,700 00		2,568 33		1,797 83		1,373 26	
Harrison, F. A., Emigration Agent, Immigration and Colonization.....	Abolition of office.....	58	16 ¹¹ / ₁₂	16 ¹¹ / ₁₂	3,620 00		3,558 00		1,186 00		1,691 81	
Hawley, W. W., Postal Clerk, Post Office.....	Ill health.....	31	10	10	1,740 00		1,637 33		327 47		238 24	
Hinsworth, L. G., Clerk, Grade 1, Marine.....	Age.....	66	15 ¹¹ / ₁₂	15 ¹¹ / ₁₂	1,020 00		1,034 00		325 71		244 26	
Hodder, J. F. M., Collector, National Revenue.....	Age.....	71	31 ¹¹ / ₁₂	31 ¹¹ / ₁₂	2,880 00		2,826 00		1,803 93		450 96	
Hoe, W. C., Caretaker, Public Works.....	Age.....	70	16 ⁹ / ₁₂	10 ⁹ / ₁₂	1,380 00		1,350 48		281 35		138 37	
Holland, R., Lightkeeper, Marine.....	Age.....	58	22 ⁹ / ₁₂	22 ⁹ / ₁₂	2,270 00		2,202 00		998 24		831 80	
Hubbard, T. C., Customs-Excise Examiner, National Revenue.....	Ill health.....	69	17	17	1,740 00		1,712 00		582 08		194 00	
Jacques, A. F. X. A., Assistant Postmaster, Post Office.....	Ill health.....	62	36 ¹¹ / ₁₂	35	4,320 00		4,275 00		2,992 50		2,244 33	

Jeffrey, A. J., Express and Postal Computing Clerk, National Revenue.....	Age.....	26	1,860 00	1,732 74	901 02	181 65
Jenkins, F. M. S., Principal Clerk, Post Office.....	Age.....	47 $\frac{1}{2}$	2,400 00	2,380 00	1,666 00	416 49
Jones, C. E., Sec. Registrar, Grade 3, National Revenue.....	Age.....	14 $\frac{1}{2}$	1,680 00	1,680 00	1,490 00	326 64
Kearney, D. J., Special Customs and Excise Officer, National Revenue.....	Ill health.....					
Killom, D., Letter Carrier, Post Office.....	Ill health.....					
King, J., Letter Carrier, Post Office.....	Age.....	34 $\frac{3}{4}$	2,400 00	2,388 00	1,655 68	1,655 64
Kirkpatrick, W. J., Railway Mail Clerk, Post Office.....	Age.....	37 $\frac{1}{2}$	1,500 00	1,483 33	1,038 33	865 20
Knigh, N. C., Sub-Collector, National Revenue.....	Age.....	45 $\frac{1}{2}$	1,500 00	1,495 86	1,047 10	216 72
Knowlton, J., Senior Postal Clerk, Post Office.....	Age.....	35	1,800 00	1,790 00	1,253 00	626 46
Lagimodiere, W., Inspector, Dominion Lands, Interior.....	Age.....	19 $\frac{1}{2}$	2,040 00	1,976 00	773 93	515 92
Lamb, J. D., Postal Clerk, Post Office.....	Age.....	21 $\frac{1}{2}$	2,040 00	2,030 00	1,421 00	355 23
Landry, W., Lightkeeper, Marine.....	Age.....	43 $\frac{1}{2}$	1,920 00	1,854 00	877 56	658 17
Lebevre, J. P., Postal Clerk, Post Office.....	Age.....	23 $\frac{3}{4}$	1,740 00	1,721 66	1,205 16	1,104 73
Leigh, H. R., Letter Carrier, Post Office.....	Age.....	36 $\frac{1}{2}$	1,220 00	1,222 50	922 63	204 05
Le Moyne, E., Clerk, Grade 2, Public Works.....	Age.....	15 $\frac{1}{2}$	1,740 00	1,711 73	604 81	215 04
Leprohon, J., Principal Clerk, National Defence.....	Ill health.....	17 $\frac{1}{2}$	1,500 00	1,470 00	739 15	532 46
Livesley, L. P., Clerk, Grade 3, Interior.....	Age.....	11 $\frac{1}{2}$	1,480 00	1,454 06	343 00	1,224 96
Lockwood, C. D., Lightkeeper, Marine.....	Age.....	26 $\frac{1}{2}$	2,400 00	2,304 00	1,224 96	1,224 96
Loiseau, A., Postal Clerk, Post Office.....	Ill health.....	15 $\frac{1}{2}$	1,500 00	1,360 86	419 60	62 44
Lunny, R. J., Chief Customs Appraiser, National Revenue.....	Age.....	7 $\frac{1}{2}$	1,820 00	1,760 00	272 80	113 65
MacDonald, John, Principal Clerk, National Defence.....	Ill health.....	26 $\frac{1}{2}$	1,620 00	1,588 00	831 05	554 00
MacNeill, C. C., Head Clerk, National Revenue.....	Age.....	35	3,600 00	3,385 00	2,369 50	1,184 70
Marion, M. L. F. A., Stenographer, Grade 2, Post Office.....	Age.....	13 $\frac{3}{4}$	2,400 00	1,869 86	514 14	509 80
Marshall, J. A., Collector, National Revenue.....	Age.....	29 $\frac{1}{2}$	2,760 00	2,441 81	1,440 67	290 44
Martin, E., Lightkeeper, Marine.....	Ill health.....	15 $\frac{1}{2}$	1,440 00	1,395 00	1,441 75	368 10
Mason, T. H., Live Stock Certificate Clerk, Agriculture.....	Age.....	35	2,340 00	2,307 78	1,615 45	1,301 33
Mathewson, A. G., Immigration Inspector, Immigration and Colonization.....	Age.....	14 $\frac{1}{2}$	1,166 00	1,091 00	321 85	160 92
Matheson, R., Clerk, Grade 3, Post Office.....	Age.....	22 $\frac{1}{2}$	2,800 00	2,800 00	1,250 66	312 66
Mattson, R., Clerk, Grade 3, Post Office.....	Ill health.....	16 $\frac{3}{4}$	1,800 00	1,698 45	549 17	475 31
Mayer, E. C., Postal Clerk, Post Office.....	Ill health.....	17 $\frac{1}{2}$	1,740 00	1,622 00	556 89	464 00
McCallum, P. T., Immigration Inspector, Immigration and Colonization.....	Ill health.....	17 $\frac{1}{2}$	1,800 00	1,712 57	613 67	58 43
McCann, J. A., Departmental Purchasing Agent, Grade 6, National Defence.....	Age.....	20 $\frac{1}{2}$	1,800 00	1,698 64	710 60	347 62
McDonald, R. H., Letter Carrier, Post Office.....	Age.....	35	4,920 00	4,896 02	3,427 21	2,054 48
McDonald, J. H., Bridge Motorman, Railways and Canals.....	Age.....	16 $\frac{3}{4}$	1,500 00	1,471 00	478 08	131 13
McDonald, Thos., Railway Mail Clerk, Post Office.....	Age.....	9 $\frac{1}{2}$	1,700 00	962 41	174 84	135 36
McGrattan, R. P., Stenographer, Grade 2, Public Works.....	Ill health.....	11 $\frac{1}{2}$	1,800 00	1,704 00	406 12	261 91
McLean, E. G., Stenographer, Grade 1, Pensions and National Health.....	Ill health.....	11	1,380 00	1,299 00	285 78	
McMullen, J. E., Inspector, Dominion Lands, Interior.....	Ill health.....	5 $\frac{1}{4}$	1,200 00	1,001 77	106 85	
Meloche, A., Lock Motorman, Railways and Canals.....	Age.....	17 $\frac{3}{4}$	1,920 00	1,862 00	648 60	216 20
Miller, F., Letter Carrier, Post Office.....	Age.....	6 $\frac{1}{2}$	1,170 00	907 77	110 44	101 20
Moore, A. T., Postal Clerk, Post Office.....	Ill health.....	21 $\frac{3}{4}$	1,500 00	1,471 20	625 26	250 08
Moore, I., Stenographer, Grade 3, Interior.....	Age.....	35	1,740 00	1,731 67	1,212 17	505 05
Moore, W. S., Customs-Excise Clerk, National Revenue.....	Age.....	34 $\frac{1}{2}$	1,680 00	1,679 00	831 11	69 25
Morin, H., Lightkeeper, Marine.....	Age.....	24 $\frac{1}{2}$	1,740 00	1,707 65	896 52	624 19
	Age.....	26 $\frac{1}{2}$	1,400 00	1,340 50	853 45	71 12
	Age.....	31 $\frac{1}{2}$				

Appendix No. 10—Continued

ALLOWANCES granted as Superannuation and amounts paid to employees retired during the year ended March 31, 1930—Con.

Name and nature of service	Cause of retirement	Age at retirement	Number of years service	Number of years to count	Salary at time of retirement		Average salary		Annual allowance		Amount paid during the fiscal year	
					\$	cts.	\$	cts.	\$	cts.		
SUPERANNUATION FUND No. 5—Continued												
Morris, J., Mail Porter, Post Office.....	Age.....	70	14 $\frac{1}{2}$	14 $\frac{1}{2}$	1,500 00		1,470 00		423 85		211 92	
Morrissey, T. E., Sub-Collector, National Revenue.....	Abolition of office.....	66	16 $\frac{1}{2}$	16 $\frac{1}{2}$	660 00		716 00		235 09		215 49	
Mugah, M. M., Hospital Attendant, Pensions and National Health.....	Ill health.....	53	11 $\frac{1}{2}$	8 $\frac{1}{2}$	1,140 00		821 68		146 50		11 02	
Murphy, M. J., Clerk, Grade 4, Printing and Stationery.....	Age.....	66	40 $\frac{1}{2}$	20	1,920 00		1,740 86		696 34		80 81	
Murray, J. A., Principal File Clerk, Marine.....	Age.....	70	49 $\frac{1}{2}$	35	2,800 00		2,800 00		1,960 00		816 65	
Nash, H. G., Forest Assistant, Interior.....	Age.....	69	12	12	1,944 00		1,848 00		443 52		443 52	
Nelligan, M., Elevator Operator, Public Works.....	Ill health.....	51	11 $\frac{1}{2}$	7 $\frac{1}{2}$	1,080 00		1,010 58		151 58		135 26	
Niblock, W. G., Collector, National Revenue.....	Age.....	69	15 $\frac{1}{2}$	15	2,340 00		2,268 00		680 40		680 40	
O'Brien, E. C., Customs-Excise Examiner, National Revenue.....	Ill health.....	62	38 $\frac{1}{2}$	35	1,740 00		1,731 67		1,212 17		505 05	
O'Brien, P., Lockman, Railways and Canals.....	Ill health.....	63	15 $\frac{1}{2}$	15 $\frac{1}{2}$	1,110 00		865 73		265 49		256 59	
O'Connor, D. J., Head Clerk, Secretary of State.....	Age.....	75	20 $\frac{1}{2}$	20 $\frac{1}{2}$	3,000 00		2,928 45		1,957 77		604 27	
O'Connor, E., Wharf Patrolman, Marine.....	Age.....	75	19 $\frac{1}{2}$	17 $\frac{1}{2}$	1,260 00		1,250 65		477 33		78 39	
Paradis, J. J. P., Letter Carrier, Post Office.....	Age.....	66	17 $\frac{1}{2}$	17 $\frac{1}{2}$	1,560 00		1,475 00		528 54		44 04	
Parent, Y. C., Stenographer, Grade 3, Public Works.....	Ill health.....	38	17	17	1,920 00		1,420 00		482 80		321 84	
Paterson, G. W., Clerk, Grade 4, Interior.....	Age.....	71	50 $\frac{1}{2}$	35	1,920 00		1,893 87		1,325 71		865 94	
Patterson, T. B., Clerk, Grade 2, National Revenue.....	Age.....	68	29 $\frac{1}{2}$	29 $\frac{1}{2}$	1,440 00		1,424 32		500 89		218 13	
Paul, A. R., Customs-Excise Examiner, National Revenue.....	Ill health.....	66	45	35	1,740 00		1,704 00		1,016 72		1,016 64	
Pegg, A., Clerk, Grade 2, Interior.....	Age.....	57	21	21	1,440 00		1,440 00		1,008 00		504 00	
Petepiece, T. E., Postmaster, Post Office.....	Ill health.....	65	19 $\frac{1}{2}$	19 $\frac{1}{2}$	2,640 00		2,412 00		1,013 04		506 52	
Peters, C. M., Lightkeeper, Marine.....	Age.....	61	17 $\frac{1}{2}$	13 $\frac{1}{2}$	1,227 48		1,228 10		485 07		96 09	
Picard, G., Immigration Guard, Immigration and Colonization.....	Ill health.....	56	17 $\frac{1}{2}$	13 $\frac{1}{2}$	1,260 00		1,242 26		325 06		54 26	
Plumridge, J. W., Cleaner and Helper, National Defence.....	Age.....	69	11 $\frac{1}{2}$	11 $\frac{1}{2}$	1,200 00		1,187 90		269 26		322 84	
Podger, C., Postal Clerk, Post Office.....	Age.....	75	17 $\frac{1}{2}$	17 $\frac{1}{2}$	1,620 00		1,589 00		553 50		94 35	
Proctor, W. G., Caretaker, Public Works.....	Age.....	47	18 $\frac{1}{2}$	18 $\frac{1}{2}$	1,380 00		1,356 17		300 62		415 60	
Provost, J. A., Postal Clerk, Post Office.....	Ill health.....	70	12 $\frac{1}{2}$	7 $\frac{1}{2}$	1,740 00		1,708 00		623 42		129 11	
Purvis, C., Cleaner and Helper, Public Works.....	Age.....	74	18 $\frac{1}{2}$	18 $\frac{1}{2}$	1,200 00		1,156 13		177 27		357 67	
Reid, J. D. P., Customs-Excise Clerk, National Revenue.....	Age.....	66	15 $\frac{1}{2}$	15 $\frac{1}{2}$	1,740 00		1,709 33		643 85		89 02	
Richard, J. J. L., Postal Clerk, Post Office.....	Age.....	66	43 $\frac{1}{2}$	35	1,740 00		1,714 00		534 20		724 88	
Robillard, R. J., Chief Draftsman, Public Works.....	Ill health.....	65	16 $\frac{1}{2}$	16 $\frac{1}{2}$	3,120 00		3,106 67		2,174 67			
Rochon, J., Inspector, Food and Drugs, Pensions and National Health.....	Ill health.....	50	16 $\frac{1}{2}$	16 $\frac{1}{2}$	1,740 00		1,635 00		528 65		528 60	
Rome, A., Grain Weighman, Trade and Commerce.....	Age.....	70	20 $\frac{1}{2}$	20 $\frac{1}{2}$	2,460 00		2,372 00		984 38		574 21	

Sankey, E. M., Immigration Inspector, Immigration and Colonization.	Age.	17 ² / ₃	1,800 00	1,694 13	551 65	555 78
*Shaw, J. F., Principal Clerk, Pensions and National Health.	Ill health.	17 ² / ₃	2,400 00	2,312 32	809 31	180 57
Shaw, P. C., Customs-Excise Clerk, National Revenue.	Ill health.	16 ⁵ / ₈	1,740 00	1,713 26	565 38	129 17
Smith, Alfred, Letter Carrier Overseer, Post Office.	Ill health.	29 ³ / ₄	1,920 00	1,866 00	1,107 16	276 78
Smith, F. H., Postmaster, Post Office.	Age.	35	4,020 00	4,020 00	2,814 00	703 50
Smith, Theophilus, Postal Clerk, Post Office.	Age.	35	1,740 00	1,720 00	1,204 00	1,203 96
Southern, E. W., Lightkeeper, Marine.	Age.	43 ¹ / ₂	1,256 00	1,184 05	519 01	1,186 95
Staples, Wm., Clerk, Grade 3, Public Works.	Age.	40 ¹ / ₂	1,620 00	1,520 00	334 05	383 49
*Stewart, C. R., Parliamentary Doorkeeper, House of Commons.	Age.	10 ¹ / ₂	1,440 00	1,440 00	1,008 00	336 00
*Stewart, C. R., F., Director of Meteorological Service, Marine.	Age.	35	5,520 00	5,454 00	3,454 20	2,590 65
Stupart, Sir R. F., Senior Postal Clerk, Post Office.	Age.	31 ⁵ / ₈	2,040 00	2,020 00	1,414 00	706 98
Sullivan, E. A., Senior Postal Clerk, Post Office.	Age.	35	1,380 00	1,376 77	493 34	
Summerfield, T. H., Caretaker, Public Works.	Age.	17 ¹ / ₂	3,120 00	3,100 00	2,170 00	1,084 98
Taylor, E. L., Departmental Accountant, Grade 3, Post Office.	Age.	35	1,500 00	1,475 00	329 42	27 45
Taylor, F., Mail Porter, Post Office.	Ill health.	11 ⁵ / ₈	1,740 00	1,740 00	619 36	154 83
Taylor, Wm., Postal Clerk, Post Office.	Ill health.	18 ⁵ / ₈	1,620 00	1,659 00	522 88	290 47
Thicke, G. M., Clerk, Grade 3, Trade and Commerce.	Ill health.	17 ¹ / ₂	1,920 00	1,852 00	1,206 40	1,080 30
Thompson, T. E., Clerk, Grade 4, National Revenue.	Age.	35	2,520 00	2,460 00	1,006 13	335 36
Thomson, Wm., Veterinary Inspector, Agriculture.	Ill health.	20 ⁵ / ₈	2,340 00	2,251 22	1,189 28	396 40
Tobin, T. S., Collector, National Revenue.	Age.	26 ⁵ / ₈	1,560 00	1,485 00	529 65	220 65
Torrie, G. E., Fisheries Inspector, Fisheries.	Age.	17 ¹ / ₂	1,500 00	1,435 00	402 32	294 11
Torrie, G. E., Fisheries Inspector, Fisheries.	Age.	14 ¹ / ₂	1,920 00	1,806 00	611 03	
Trew, E., Clerk, Grade 3, National Revenue.	Ill health.	16 ¹ / ₂	1,920 00	1,806 00	611 03	
Trumpour, F. T. T., Clerk, Grade 4, National Revenue.	Ill health.	35	1,500 00	1,468 00	1,027 60	685 04
Tubbs, F. H., Letter Carrier, Post Office.	Age.	35	1,800 00	1,780 00	1,246 00	1,245 96
Urquhart, J. R., Railway Mail Clerk, Post Office.	Age.	17 ⁵ / ₈	1,740 00	1,698 58	588 84	383 06
Valois, L., Postal Clerk, Post Office.	Ill health.	34 ¹ / ₂	4,920 00	4,415 00	3,053 71	3,053 64
Verner, T. H., Collector, National Revenue.	Age.	34 ¹ / ₂	1,170 00	971 42	166 76	125 01
Waldron, J. H., Lock Motorman, Railways and Canals.	Age.	8 ¹ / ₂	1,800 00	1,714 00	719 88	569 91
Wattford, G. H., Draftsman, Public Works.	Ill health.	21 ⁵ / ₈	1,920 00	1,786 75	1,051 21	788 40
Westwick, H., Clerk, Grade 4, Printing and Stationery.	Ill health.	29 ³ / ₄	1,056 00	954 00	325 95	325 92
Wilde, J., Lightkeeper, Marine.	Age.	17 ¹ / ₂	1,800 00	1,800 00	1,260 00	962 50
Wiley, W. E., Postal Clerk, Post Office.	Age.	35	2,280 00	2,225 35	752 91	208 46
Wilson, E. E., Supervising Immigration Inspector, Immigration and Colonization.	Age.	16 ¹ / ₂	3,240 00	3,117 00	872 76	654 29
Wilson, J. E., Assistant Receiver General, Finance.	Age.	14	1,740 00	1,715 00	677 42	
Wood, C. H., Customs-Excise Examiner, National Revenue.	Age.	19 ⁵ / ₈	1,620 00	1,586 00	607 97	506 60
Woods, M., Postal Clerk, Post Office.	Age.	19 ³ / ₄	2,880 00	2,363 29	1,161 95	78 08
Yates, T. H., Customs-Excise Surveyor, Grade 5, National Revenue.	Age.	24 ¹ / ₂	1,500 00	1,488 00	684 48	228 16
Young, C. A., Fisheries Inspector, Fisheries.	Age.	23			179,477 11	99,529 36

DEPARTMENT OF FINANCE

Appendix No. 10—Continued

ANNUITIES granted and amounts paid to dependents of employees who died during the year ended March 31, 1930

Name of Contributor and Nature of Service	Dependents' Relationship to contributor	Age at death	Number of years service	Number of years to count	Final annual salary	Average salary	Annual allowance to dependents	Amount paid during the fiscal year
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
SUPERANNUATION FUND No. 5—Continued								
Ashforth, J. G., Grain Trackman, Trade and Commerce.....	Widow.....	68	12 ⁵ / ₁₂	12 ⁵ / ₁₂	1,620 00	1,458 00	184 68	69 25
Audet, F., Caretaker, Public Archives.....	"	66	17 ³ / ₁₂	13 ³ / ₁₂	1,380 00	1,379 84	222 16	
Baker, F. C., Head Clerk, Board of Pension Commissioners.....	"	49	13 ³ / ₁₂	13 ³ / ₁₂	3,000 00	2,846 19	468 44	113 31
Balmain, G. E., Collector, National Revenue.....	"	67	17 ³ / ₁₂	16 ³ / ₁₂	1,920 00	1,895 09	315 85	
Banks, John, Sub-Collector, National Revenue.....	"	66	17	17	2,040 00	1,972 00	335 24	175 68
Barrett, A. E., Assistant Architect, Public Works.....	"	52	15 ³ / ₁₂	15 ³ / ₁₂	2,700 00	2,629 87	618 02	569 93
Bertrand, T., Wage Investigator, Labour.....	"	57	12 ³ / ₁₂	12 ³ / ₁₂	2,520 00	2,296 06	279 36	175 73
Bobby, H. J., Letter Carrier, Post Office.....	"	62	35 ³ / ₁₂	19 ³ / ₁₂	1,500 00	1,494 25	287 64	82 74
Boivin, G. L. N., Committee Clerk, House of Commons.....	"	59	26 ³ / ₁₂	26 ³ / ₁₂	2,520 00	2,352 60	949 86	941 88
Bowman, A. O., Customs-Excise Examiner, National Revenue.....	"	73	21 ³ / ₁₂	21 ³ / ₁₂	1,740 00	1,707 32	359 96	260 24
Burnie, W. E., Postal Clerk, Post Office.....	"	56	26	26	1,740 00	1,714 68	668 72	
Burton, R. H., Land Administration Clerk, Interior.....	"	60	17 ³ / ₁₂	17 ³ / ₁₂	1,740 00	1,608 00	286 76	
Burwell, E. V., Assistant Engineer, Public Works.....	"	55	16	16	2,580 00	2,267 35	362 78	319 86
Butterworth, A. F. W., Departmental Accountant, Gr. 2, Immigration and Colonization.....	"	47	21 ⁴ / ₁₂	21 ⁴ / ₁₂	2,700 00	2,645 47	564 37	
Cairns, R. H., District Inspector, Indian Schools, Indian Affairs.....	"	71	15 ³ / ₁₂	15 ³ / ₁₂	2,100 00	2,030 64	307 98	273 98
Callaghan, J. A., Postmaster, Post Office.....	"	68	42 ³ / ₁₂	17 ³ / ₁₂	2,880 00	2,816 77	492 94	
Carrier, G. L., Clerk, Gr. 3, Post Office.....	"	50	15 ³ / ₁₂	15 ³ / ₁₂	1,560 00	1,157 81	178 50	49 41
Carrier, P., Departmental Accountant, Gr. 2, Post Office.....	"	55	34 ³ / ₁₂	34 ³ / ₁₂	2,700 00	2,383 16	977 10	640 86
Chapman, H. D., Engineering Clerk, Interior.....	"	64	15 ³ / ₁₂	10 ³ / ₁₂	1,740 00	1,573 61	161 29	
Chartrand, E. J., Clerk, Gr. 3, Post Office.....	"	42	18 ³ / ₁₂	18 ³ / ₁₂	1,620 00	1,535 10	431 75	92 83
Cloutier, S., Postal Clerk, Post Office.....	"	38	17 ³ / ₁₂	16 ³ / ₁₂	1,740 00	1,705 29	424 19	379 60
Collins, W. T., Customs-Excise Clerk, National Revenue.....	"	68	12 ³ / ₁₂	12 ³ / ₁₂	1,740 00	1,715 03	221 52	
Connelly, M., Mail Porter, Post Office.....	"	68	17 ³ / ₁₂	17 ³ / ₁₂	1,500 00	1,473 29	261 50	59 04
Corriveau, H. F., Chief Radio Operator, Marine.....	"	34	13 ³ / ₁₂	13 ³ / ₁₂	2,190 00	1,911 27	354 54	
Côté, J. A. E., Postal Clerk, Post Office.....	Children.....	46	22 ³ / ₁₂	22 ³ / ₁₂	1,740 00	1,707 23	308 44	225 50
Cryderman, C. W., Customs-Excise Examiner, National Revenue.....	Widow.....	64	23 ³ / ₁₂	23 ³ / ₁₂	1,740 00	1,709 43	400 29	218 99
Cyr, J. E., Clerk of Works, Public Works.....	"	74	14 ³ / ₁₂	14 ³ / ₁₂	2,520 00	2,448 81	365 28	353 10
Dame, M., Postal Clerk, Post Office.....	"	52	17 ³ / ₁₂	16 ³ / ₁₂	1,500 00	1,713 19	289 82	67 78
Davidson, A. S., Customs Truckman, National Revenue.....	"	67	10 ³ / ₁₂	10 ³ / ₁₂	1,500 00	1,378 47	143 59	37 42
Desrochers, R. C., Assistant Deputy Minister, Public Works.....	"	61	44	35	5,220 00	5,200 97	1,820 34	714 41
Dismore, J. E., Senior Examiner, National Revenue.....	"	59	20 ³ / ₁₂	20 ³ / ₁₂	1,920 00	1,884 77	378 53	354 29
Durant, C. D., Clerk, Grade 1, Marine.....	"	38	10 ³ / ₁₂	7 ³ / ₁₂	1,200 00	1,176 83	132 39	51 11
Farmer, R. C., Customs-Excise Examiner, National Revenue.....	"	68	23 ³ / ₁₂	23 ³ / ₁₂	1,740 00	1,709 47	400 30	217 89

Filion, E., Postal Clerk, Post Office.....	49	15.9 ² ₁₆	1,740 00	1,715 29	394 51
Fisher, J. W., Veterinary Inspector, Agriculture.....	68	16.1 ² ₁₇	2,520 00	2,469 71	339 58
Fulford, H. L., Principal Clerk, Interior.....	63	23	2,400 00	2,328 87	711 79
Gaiger, A. P., Letter Carrier, Post Office.....	40	11.1 ¹ ₁₁	1,500 00	1,475 09	263 67
Gamble, O. K., Clerk, Grade 4, Interior.....	44	14.6 ² ₁₅	1,740 00	1,631 03	282 17
Gaudet, A., Senior Customs and Excise Clerk, National Revenue.....	66	26.9 ² ₂₇	2,220 00	1,984 00	525 75
Gough, D. S., Clerk, Grade 3, Auditor General's Office.....	47	10.1 ¹ ₁₀	1,620 00	1,383 87	3 77
Goyette, L. F., Clerk, Grade 4, Post Office.....	47	24.1 ¹ ₂₄	1,800 00	1,647 90	410 60
Goyette, L. F., Clerk, Grade 3, Marine.....	66	27.1 ¹ ₂₇	2,100 00	2,100 00	699 30
Hamel, A. J., Clerk, Grade 3, Customs Appraiser, National Revenue.....	70	39.1 ¹ ₃₉	2,700 00	2,568 33	449 36
Harris, S. T. H., Customs Appraiser, National Revenue.....	70	22.9 ² ₂₃	1,920 00	1,797 00	58 18
Hennessy J., Express and Postal Computing Clerk, National Revenue.....	37	16.1 ¹ ₁₆	1,740 00	1,679 00	411 35
Hill, W. A., Postal Clerk, Post Office.....	44	13.1 ¹ ₁₃	1,800 00	1,764 40	322 01
Horton, A. H., Railway Mail Clerk, Post Office.....	67	11.1 ¹ ₁₁	1,800 00	1,618 10	289 23
Hudson, P. E., Inspector, Weights and Measures, Trade and Commerce.....	65	40.1 ¹ ₄₀	2,400 00	2,383 23	417 07
Jeffery, J. E., Principal Postal Clerk, Post Office.....	62	16.1 ¹ ₁₆	1,200 00	1,162 48	225 53
Johnson, W. R., Hachery Helper, Fisheries.....	55	13.1 ¹ ₁₃	2,460 00	2,056 31	149 08
Jones, John, Grain Weighman, Trade and Commerce.....	53	13.1 ¹ ₁₃	1,140 00	944 44	126 71
Lang, W. M., Lockmaster, Railways and Canals.....	64	10.1 ¹ ₁₀	3,120 00	3,069 64	324 87
Laprise, A., Superintendent, Power Plant, Public Works.....	50	22.1 ¹ ₂₂	2,400 00	2,129 29	459 57
Larmouth, F. F., Principal Clerk, Immigration and Colonization.....	60	21.1 ¹ ₂₁	1,500 00	1,464 80	177 00
Leblanc, A., Mail Porter, Post Office.....	39	15.1 ¹ ₁₅	1,500 00	1,473 68	222 28
Léveillé, J. H., Letter Carrier, Post Office.....	65	25.1 ¹ ₂₅	2,100 00	2,046 07	514 93
Little, D., Senior Inspector, Weights and Measures, Trade and Commerce.....	50	30.1 ¹ ₃₀	3,720 00	2,607 06	948 96
Macdonald, E. F., District Superintendent, Post Office.....	42	17	1,740 00	1,705 23	282 79
MacIsaac, A. A., Customs-Excise Clerk, National Revenue.....	46	18	1,740 00	1,712 77	308 30
Magill, R. A., Customs-Excise Examiner, National Revenue.....	62	30.9 ² ₃₁	4,790 00	4,412 71	345 88
Martineau, G. E., Medical Officer, Grade 3, Pensions and National Health.....	53	17.1 ¹ ₁₇	1,740 00	1,951 84	322 81
Mauder, F. E., Park Warden, Interior.....	59	11.1 ¹ ₁₁	1,260 00	1,214 00	188 37
McFarland, C., Elevator Operator, Public Works.....	44	17.9 ² ₁₈	1,740 00	1,714 32	365 14
McFarland, A. L., Postal Clerk, Post Office.....	68	22.9 ² ₂₃	2,520 00	2,449 60	549 10
McMurry, J. C., Veterinary Inspector, Agriculture.....	46	16.1 ¹ ₁₆	1,620 00	1,585 71	204 82
McNeill, J. S., Postal Clerk, Post Office.....	60	13.1 ¹ ₁₃	1,800 00	1,638 02	143 33
Mears, E. C., Moisture Tester Operator, Trade and Commerce.....	57	24.1 ¹ ₂₄	2,160 00	2,110 58	525 88
Milot, J. F., Special Excise-man, National Revenue.....	51	17.9 ² ₁₈	1,740 00	1,706 00	351 44
O'Leary, H. L., Postal Clerk, Post Office.....	45	21.9 ² ₂₂	1,560 00	1,479 55	386 16
Ovelli, W. G., Senior Letter Carrier, Post Office.....	46	25.1 ¹ ₂₅	3,720 00	3,546 13	919 04
Patten, C. B., Chief Clerk, National Revenue.....	56	16.1 ¹ ₁₆	2,220 00	2,071 35	343 50
Peacock, R. A., Customs-Excise Account Clerk, National Revenue.....	61	31.1 ¹ ₃₁	1,600 00	1,584 62	311 53
Pelletier, E. A., Messenger to Minister, Railways and Canals.....	64	36.1 ¹ ₃₆	2,100 00	2,100 00	735 00
Persse, R. M., Clerk, Grade 4, National Revenue.....	66	19.9 ² ₂₀	1,800 00	1,218 06	183 92
Piché, J., Elevator Operator, Public Works.....	44	13.1 ¹ ₁₃	1,800 00	1,738 45	345 52
Preville, J. L., Draftsman, Public Works.....	50	14.1 ¹ ₁₄	1,740 00	1,710 52	253 73
Reeves, A. E., Customs-Excise Examiner, National Revenue.....	52	24.1 ¹ ₂₄	2,040 00	1,983 27	591 01
Regan, C. H., Senior Postal Clerk, Post Office.....	41	15.1 ¹ ₁₅	1,740 00	1,583 13	349 09
Reid, N. A., Postal Clerk, Post Office.....	61	28.1 ¹ ₂₈	1,700 00	1,635 44	646 81
Ruggles, F. G., Lightkeeper, Marine.....	61	21.9 ² ₂₂	1,600 00	1,600 00	416 00
Ryan, T. W., Clerk, Grade 2, Interior.....	57	30.1 ¹ ₃₀	1,680 00	1,676 00	616 77
Salingar, S., Clerk, Grade 3, Immigration and Colonization.....					

Appendix No. 10—Continued

ANNUITIES granted and amounts paid to dependents of employees who died during the year ended March 31, 1930—Con.

Name of Contributor and Nature of Service	Dependents' Relationship to contributor	Age at death	Number of years service	Number of years to count	Final annual salary	Average salary	Annual allowance to dependents	Amount paid during the fiscal year
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
SUPERANNUATION FUND No. 5—Concluded								
Shaw, J. F., Principal Clerk Bookkeeper, Pensions and National Health	Child.....	43	17 ⁶ / ₁₂	17 ⁶ / ₁₂	2,400 00	2,312 32	161 86	111 32
Shea, J. W., Assistant Postmaster, Post Office.....	Widow.....	42	21 ⁶ / ₁₂	21 ⁶ / ₁₂	2,580 00	1,901 68	613 28	181 32
Silver, A. F., Customs-Excise Examiner, National Revenue.....	Children.....	44	15 ⁶ / ₁₂	15 ⁶ / ₁₂	1,740 00	1,710 16	210 92	102 59
Slack, C. C., Clerk, Grade 3, External Affairs.....	Widow.....	39	10 ⁶ / ₁₂	8 ⁶ / ₁₂	1,680 00	1,680 00	162 40	65 39
Sleeth, J., Clerk, Grade 3, Immigration and Colonization.....	".....	56	26 ⁶ / ₁₂	26 ⁶ / ₁₂	1,440 00	1,334 61	353 67	296 60
Smith, Alex., Lay Inspector, Agriculture.....	".....	57	10 ⁶ / ₁₂	9 ⁶ / ₁₂	1,620 00	1,528 00	212 12	135 42
Splane, A. A., Lightkeeper, Marine.....	".....	64	24 ⁶ / ₁₂	24 ⁶ / ₁₂	1,700 00	1,640 71	396 50	186 52
Starratt, W. W. P., Railway Mail Clerk, Post Office.....	".....	67	28 ⁶ / ₁₂	28 ⁶ / ₁₂	1,800 00	1,768 74	498 20	301 28
Stewart, C. R., Parliamentary Doorkeeper, House of Commons.....	".....	70	49 ⁶ / ₁₂	17 ⁶ / ₁₂	1,440 00	1,440 00	252 00	167 32
Stocks, J. W., Stores Clerk, Trade and Commerce.....	".....	58	21 ⁶ / ₁₂	21 ⁶ / ₁₂	1,440 00	1,413 07	464 55	260 65
St. Pierre, J. L., Senior Postal Clerk, Post Office.....	".....	47	21 ⁶ / ₁₂	21 ⁶ / ₁₂	2,040 00	1,922 87	612 92	563 47
Suffel, J. W., Lockmaster, Railways and Canals.....	".....	66	17 ⁶ / ₁₂	17 ⁶ / ₁₂	1,200 00	1,197 26	209 52	
Talbot, J. O. L., Examiner and Caretaker, National Revenue and Public Works.....	".....	55	16 ⁶ / ₁₂	16 ⁶ / ₁₂	1,740 00	1,740 00	292 90	
Taylor, E. G., District Supervisor of Fish, Fisheries.....	".....	67	24 ⁶ / ₁₂	24 ⁶ / ₁₂	2,760 00	2,600 00	906 97	
Thomson, J. D., Sheep Promoter, Agriculture.....	".....	59	14 ⁶ / ₁₂	14 ⁶ / ₁₂	2,040 00	1,988 42	294 95	
Tobin, M., Senior Checking Clerk, National Revenue.....	".....	70	24 ⁶ / ₁₂	24 ⁶ / ₁₂	2,280 00	2,081 81	518 72	
Valleau, D. A., Collector, National Revenue.....	".....	59	13	12 ⁶ / ₁₂	2,880 00	2,735 33	348 75	178 23
Vyryan, S., Customs-Excise Examiner, National Revenue.....	".....	71	27 ⁶ / ₁₂	25 ⁶ / ₁₂	1,740 00	1,705 58	439 19	381 24
Warburton, H. H., Customs-Excise Clerk, National Revenue.....	".....	68	24 ⁶ / ₁₂	21 ⁶ / ₁₂	1,740 00	1,714 00	371 36	61 88
Wetmore, H. W., Head Clerk, National Revenue.....	".....	40	18 ⁶ / ₁₂	18 ⁶ / ₁₂	2,520 00	1,991 16	511 07	279 61
Wilkinson, T. C., Assessor, Income Tax, National Revenue.....	".....	69	10 ⁶ / ₁₂	10 ⁶ / ₁₂	2,200 00	1,815 00	190 57	77 28
Wilson, W. W., Customs-Excise Examiner, National Revenue.....	".....	68	13 ⁶ / ₁₂	13 ⁶ / ₁₂	2,280 00	1,714 82	234 36	
Wood, H. L., Senior Customs and Excise Clerk, National Revenue.....	".....	71	29 ⁶ / ₁₂	29 ⁶ / ₁₂	2,280 00	1,992 80	586 22	581 31
							42,962 19	18,297 51

Appendix No. 10—Continued

AMOUNTS paid as Gratuities to Contributors or Dependents of Deceased
Employees during the fiscal year ended March 31, 1930

Name of Contributor	Department	To whom paid	Amount paid
			\$ cts.
Affleck, John.....	Public Works.....	Contributor.....	253 75
Asselin, Amable.....	Post Office.....	Widow.....	330 00
Berberick, Leonard J.....	Pensions and National Health	Contributor.....	135 00
Bird, Wm. R.....	Post Office.....	".....	513 33
Brankin, Margaret T.....	Public Printing and Stationery	".....	911 25
Burnett, Mary H.....	Post Office.....	".....	864 58
Carr, Edward J. B.....	".....	".....	1,135 83
Cassidy, Henry J.....	Fisheries.....	Widow.....	1,177 08
Clyde, T. T.....	Agriculture.....	Contributor.....	1,085 00
Conway, L. A.....	Railways and Canals.....	".....	316 04
Desaulniers, Lionel.....	Public Works.....	Widow.....	393 75
Dorion, R. F. X.....	National Revenue.....	".....	918 33
Elderton, R. H.....	Public Works.....	Contributor.....	261 25
Elsden, A. J.....	National Revenue.....	Widow.....	976 01
Enefer, George.....	Public Works.....	".....	482 92
Foreman, Albert.....	National Revenue.....	".....	652 50
Foster, George.....	Post Office.....	Contributor.....	513 33
Friend, Wm. D.....	".....	Widow.....	1,685 83
Garlick, George F.....	Immigration and Colonization	".....	292 50
Grieve, Gavin H.....	Indian Affairs.....	Contributor.....	431 67
Grove, Fred.....	Pensions and National Health	".....	87 50
Gugin, Albert A.....	Finance.....	".....	60 00
Hardie, Annie.....	Immigration and Colonization	".....	1,148 33
Hooser, G. A.....	National Revenue.....	".....	954 58
Houlahan, John A.....	Justice.....	".....	740 00
James, Daniel D.....	Indian Affairs.....	Widow.....	312 50
Johnstone, Thos. J.....	Pensions and National Health	Contributor.....	96 25
Juneau, Henri A.....	Post Office.....	Widow.....	1,187 50
Lamon, Lyle W.....	National Revenue.....	".....	357 50
Lamontagne, Nap.....	Public Works.....	".....	175 00
Lawrence, Arthur.....	Post Office.....	".....	593 75
Leblanc, Jules.....	Agriculture.....	".....	55 00
Marchant, Jas.....	Marine.....	Contributor.....	945 00
Maynard, Ernest H.....	".....	Widow.....	436 08
McKee, Alfred.....	Public Works.....	Contributor.....	346 67
Meek, Ruth I.....	Pensions and National Health	".....	346 67
Michaud, Joseph.....	Marine.....	Widow.....	56 25
Monk, Eric.....	Post Office.....	".....	125 00
Moors, Frederick L.....	Public Works.....	".....	843 33
Munro, D. A.....	National Revenue.....	".....	1,377 50
Murcott, Harold.....	Post Office.....	".....	95 00
Myrick, Wm.....	Marine.....	Contributor.....	223 33
Oakley, John.....	Public Works.....	".....	1,035 00
O'Connor, Evelyn M.....	National Revenue.....	".....	783 33
Payne, Thos. H. S.....	Public Works.....	".....	891 25
Pearce, Wm. T.....	".....	".....	720 42
Pinneo, H. W.....	Railways and Canals.....	Widow.....	113 33
Pringle, C. A.....	National Revenue.....	Contributor.....	1,147 92
Ranger, Alfred.....	Railways and Canals.....	Widow.....	90 00
Robertson, Wm. W.....	National Revenue.....	".....	1,150 00
Russell, Lewis H.....	Pensions and National Health	Contributor.....	56 67
Smithman, H. H.....	Marine.....	Widow.....	168 88
Stubbs, John H.....	National Revenue.....	Contributor.....	726 25
Sweeting, John.....	Post Office.....	Widow.....	225 00
Tessier, Josephine.....	Railways and Canals.....	Contributor.....	70 71
Violon, Frank.....	Public Works.....	Widow.....	533 33
Warren, S. W.....	Marine.....	".....	594 03
Wynn, John R.....	Public Works.....	Contributor.....	751 67
			32,950 48

Appendix No. 10—Continued

WITHDRAWAL Allowances paid to Contributors or Dependents of Deceased Employees during the fiscal year ended March 31, 1930

Name of Contributor	Department	To whom paid	Amount paid	
			\$	cts.
Abernethy, L. K.	Post Office	Contributor	144	70
Allaway, Catherine M.	Agriculture	"	110	90
Amsbury, Vivian	Post Office	"	277	43
Appleton, Frank	Trade and Commerce	"	161	19
Atkinson, John	Post Office	"	232	25
Bailey, Elva L.	Agriculture	"	117	35
Banford, Alice M.	Immigration and Colonization	"	208	52
Barker, Harriet	Post Office	Father	939	89
Barnes, Lily	Interior	Contributor	750	80
Barr, Margaret E.	Post Office	"	172	67
Bartholomew, Gilbert	National Revenue	"	522	73
Barthlett, Hildegarde	Pensions and National Health	"	631	26
Batchelor, T. E.	National Revenue	"	803	80
Bates, Jessie McK.	"	"	125	50
Baxter, K. E.	"	"	1,069	64
Beaton, Hilda G.	Agriculture	"	196	72
Beaupré, Albina	Mines	"	217	83
Beckwith, John	Public Works	"	514	52
Best, Lyda M.	Finance	"	35	80
Bigras, Marie C. G.	Auditor General's Office	"	49	73
Bird, Frederick G.	Civil Service Commission	"	1,699	32
Blake, Myrtle L.	Trade and Commerce	"	92	00
Boulet, L. N.	Public Works	"	1,179	60
Bowin, Marie J.	Agriculture	"	135	66
Breault, Simone	Fisheries	"	119	93
Brennan, John	Public Works	Daughters	149	50
Brooker, E. J.	Post Office	Contributor	795	50
Brown, Kathleen E.	"	"	1,155	09
Bryan, A. E.	Trade and Commerce	"	3,080	81
Bulley, Edward	Post Office	"	1,035	42
Calnan, Elizabeth S.	"	"	160	45
Cameron, Dalziel	"	"	1,237	82
Campbell, Donald E.	Pensions and National Health	"	1,285	07
Camten, Gerard	National Revenue	"	195	48
Carrier, Anita	Post Office	"	15	00
Carroll, Frank P.	National Revenue	Sister	2,167	19
Chagnon, Gratia	Post Office	Contributor	215	25
Chalifour, Marie S. A.	Interior	"	112	26
Chisholm, L. L.	Post Office	"	775	70
Clarke, Rita	National Defence	"	730	20
Clendenning, Charles H.	National Revenue	"	1,016	61
Codire, A. A.	"	Sisters	565	03
Cole, Bertha L.	Pensions and National Health	Contributor	39	00
Collins, Heber L.	"	"	62	19
Condie, Annie B.	Finance	"	380	71
Connor, Jessie V.	Mines	"	1,231	86
Coté, Alfred J.	Post Office	"	1,135	14
Coté, Edouard	"	"	1,384	97
Cousineau, Henry	National Revenue	Sisters	934	30
Craig, H. B. R.	Public Works	Contributor	2,538	99
Crockett, Ida	Post Office	"	1,074	19
Cross, Heber E.	Interior	"	732	10
Currier, Sibyl	National Revenue	"	103	90
Daigle, R. P.	"	"	1,798	54
Davis, Percy	Post Office	Mother	780	00
Davis, Vera F.	"	Contributor	31	95
Dean, Marjorie	Immigration and Colonization	"	235	16
de la Ronde, Elizabeth H.	National Revenue	"	35	96
Delude, Simon	"	"	240	29
Deneault, Marie C. E.	Post Office	"	81	85
Denton, Henrietta E.	Pensions and National Health	"	20	94
Devine, Georgina	"	"	438	30
Dexter, Clara	Post Office	"	180	87
Dolmage, Victor	Mines	"	1,584	59
Donnelly, Mary L. E.	Public Works	"	239	31
Draper, E. N.	National Revenue	"	887	80

Appendix No. 10—Continued

WITHDRAWAL Allowances paid to Contributors or Dependents of Deceased employees during the fiscal year ended March 31, 1930—Continued

Name of Contributor	Department	To whom paid	Amount paid
			\$ cts.
Draper, Stella E.	Post Office.	Contributor.	191 35
Drouin, Fernande.	Justice.	"	614 20
Dubrule, A. F.	National Revenue.	"	1,744 86
Duford, C. F. C.	Mines.	"	481 06
Dunlop, Margaret C.	Public Works.	"	132 56
Dupuis, Hector.	Post Office.	Father.	1,655 00
Edney, Joan M.	Immigration and Colonization	Contributor.	170 01
Edwards, William H.	Post Office.	Father.	176 23
Empsey, Frances E.	Pensions and National Health	Contributor.	406 17
Fairman, Nora.	National Revenue.	"	133 00
Faulkner, Cecile.	Post Office.	"	902 64
Fauteaux, E. M. C.	National Revenue.	"	30 24
Foreman, Minnie.	"	"	53 04
Foster, A. E.	Post Office.	"	728 54
Fowler, George W.	Pensions and National Health	"	28 45
Fowlie, E. A.	National Revenue.	"	1,132 42
Fraser, A. M.	Immigration and Colonization	"	207 22
Geldart, A. G.	National Revenue.	"	47 18
Gibson, Edwin.	Mines.	"	63 00
Green, Ann E.	Post Office.	"	248 40
Griffith, William F.	"	"	2,000 97
Hall, M. J.	National Revenue.	"	1,323 60
Halls, Gladys H.	Post Office.	"	178 25
Hancock, Charles H.	"	"	1,101 70
Harrington, Fred D.	"	"	639 34
Hayward, A. F.	Interior.	"	491 01
Huggins, Muriel A. I.	Post Office.	"	224 00
Humphreys, H. W. R.	Interior.	Mother.	940 65
Hutchingame, Elizabeth T.	National Defence.	Contributor.	1,330 18
Jackson, Athol Y.	Labour.	"	87 50
Jarvis, Naomi G. W.	National Revenue.	"	113 00
Johnson, Edith.	Justice.	"	182 25
Johnstone, Ella G.	Civil Service Commission.	"	192 50
Kealey, Norma N.	Post Office.	"	73 25
Keene, L. R. A.	Agriculture.	"	552 79
Kennedy, Margaret C.	Pensions and National Health	"	19 50
Kerr, Lewis H.	Post Office.	"	1,466 83
Ketchum, William Q.	Interior.	"	738 36
Labelle, Germaine E. A.	Finance.	"	34 60
Landerkin, Lucille E.	National Revenue.	"	25 33
Latour, Rosa.	Pensions and National Health	"	487 44
Law, Margaret N.	Agriculture.	"	649 66
Littlefield, Edward.	Post Office.	"	977 02
Lockhart, Elizabeth A.	Agriculture.	"	291 66
Low, Agnes.	Interior.	"	1,324 20
MacDonald, Jean M.	National Revenue.	"	131 75
MacIntyre, Jessie S.	Post Office.	"	239 15
MacKay, Marie A. J.	Secretary of State.	"	87 75
MacKell, Loyola.	National Revenue.	"	204 48
MacMurphy, Annabelle.	Finance.	Mother.	535 98
Mailloux, Germain.	Marine.	Daughter.	218 63
Maloney, T. L.	Post Office.	Contributor.	599 67
Marks, Gladys.	Immigration and Colonization	"	888 01
Marshall, Roy A.	Post Office.	"	1,141 68
Martin, Madeline T.	"	"	105 33
Martin, Vera A.	Interior.	"	166 43
Mason, Vera M. C.	Labour.	"	67 45
McCrea, Genevieve.	Trade and Commerce.	"	585 83
McCuaig, Tessie.	Post Office.	"	92 00
McGiffin, Kathleen C.	Interior.	"	153 75
McGuire, Mary Agnes.	Post Office.	Sister.	763 38
McHenry, Jessie.	"	Contributor.	86 25
McMillan, J. D.	National Revenue.	Daughter.	1,506 12
McRae, Catherine M.	Trade and Commerce.	Contributor.	1,021 49
McWhirter, Hugh.	National Revenue.	Brother.	198 53
Meagher, Patrick Joseph.	Post Office.	Contributor.	1,670 62
Mercier, Leonce.	Pensions and National Health	"	479 41

Appendix No. 10—Continued

WITHDRAWAL Allowances paid to Contributors or Dependents of Deceased Employees during the fiscal year ended March 31, 1930—Continued

Name of Contributor	Department	To whom paid	Amount paid
			\$ cts.
Messerschmidt, Edna.....	Post Office.....	Contributor.....	39 38
Morgan, Ethel L.....	Trade and Commerce.....	".....	83 25
Morrison, Edna N.....	Post Office.....	".....	180 75
Moriarty, Katherine.....	Pensions and National Health.....	".....	12 00
Muro, Christina.....	Trade and Commerce.....	".....	57 50
Munro, Fenton.....	National Revenue.....	".....	1,203 98
Munro, Violet E.....	Interior.....	".....	22 84
Nelson, Mary E.....	Agriculture.....	".....	51 45
Nesbitt, Alice.....	Post Office.....	Sister.....	391 97
Nichols, Violet W.....	Interior.....	Contributor.....	116 00
Nick, Ombra E. J.....	".....	".....	154 50
Nolet, Joseph H.....	Post Office.....	".....	578 42
Noonan, F. F.....	National Revenue.....	".....	331 52
O'Brien, Helena C.....	Marine.....	Sisters.....	569 62
Ogilvie, Rose I. A.....	National Revenue.....	Contributor.....	177 33
O'Neill, Ruby F.....	Interior.....	Mother.....	1,026 70
Ord, Florence I.....	Finance.....	Contributor.....	372 41
Owens, Helen N.....	National Revenue.....	".....	123 50
Panting, Winnifred M.....	Pensions and National Health.....	".....	25 50
Pilkington, Florence.....	National Defence.....	".....	163 31
Plouffe, Leda.....	Post Office.....	".....	980 40
Pommerville, C. P.....	Agriculture.....	".....	181 47
Power, Mary C.....	Pensions and National Health.....	".....	28 75
Purcell, Marjorie.....	Interior.....	".....	165 34
Purdy, R. G.....	National Revenue.....	".....	1,848 78
Quirk, Dorothy.....	Pensions and National Health.....	".....	381 43
Régimbal, Germaine.....	Printing and Stationery.....	".....	173 10
Richer, Emeriza.....	Secretary of State.....	".....	648 00
Ritchie, Lillian N.....	Indian Affairs.....	".....	496 48
Robertson, S. E. K.....	Immigration and Colonization.....	".....	182 52
Robitaille, J. Edgar.....	Interior.....	".....	1,620 21
Romans, David J.....	Post Office.....	".....	618 75
Ross, Frances.....	Interior.....	".....	31 28
Ross, Winona W.....	Marine.....	".....	339 10
Ruccins, Johanna E. H.....	Post Office.....	".....	115 00
Ruttan, Ernest H.....	Trade and Commerce.....	".....	806 30
Ryall, Dorothy E.....	Post Office.....	".....	299 50
Ryan, Nellie E.....	Pensions and National Health.....	".....	473 75
Scott, Lena.....	Post Office.....	".....	207 25
Seibert, Fred. V.....	Interior.....	".....	2,283 95
Shields, Mabel G.....	Agriculture.....	".....	168 08
Simard, Jeanne.....	Post Office.....	".....	298 50
Slack, Marion K.....	Mines.....	".....	259 17
Smith, Edward.....	Post Office.....	".....	1,452 40
Smith, Harold B.....	Interior.....	".....	806 68
Smith, Kathleen M.....	Finance.....	".....	43 94
Somerville, M. J.....	Post Office.....	".....	536 48
Soulière, Marie E.....	Labour.....	".....	1,144 82
Stark, R. S.....	National Revenue.....	Sister.....	1,833 79
Staitte, Freda B.....	Pensions and National Health.....	Contributor.....	12 50
Steele, E. L.....	".....	".....	62 00
Stein, Lillian.....	Agriculture.....	".....	195 77
Stuart, John C.....	".....	".....	1,155 09
Taylor, Cyril S.....	Trade and Commerce.....	".....	128 25
Taylor, Leonore M.....	National Revenue.....	".....	42 50
Teehan, Anna Mary.....	".....	".....	222 26
Thomas, Constance.....	Civil Service Commission.....	".....	784 64
Thomas, Mark T.....	Post Office.....	".....	1,301 00
Thornton, Mabel.....	Pensions and National Health.....	".....	61 74
Tourigny, H. B.....	Post Office.....	Mother.....	552 65
Trudeau, Mary M.....	Agriculture.....	Contributor.....	232 80
Turcotte, Georgina G.....	Interior.....	".....	120 75
Varcoe, M. F.....	National Revenue.....	".....	313 37
Walsh, Gladys.....	Post Office.....	".....	1,154 42
Warburton, Henry E.....	Mines.....	".....	753 96
Weinman, Ethel.....	Printing and Stationery.....	".....	83 65

Appendix No. 10—Continued

WITHDRAWAL Allowances paid to Contributors or Dependents of Deceased Employees during the fiscal year ended March 31, 1930—*Concluded*

Name of Contributor	Department	To whom paid	Amount paid
			\$ cts.
Wetmore, H. A.....	Post Office.....	Contributor.....	975 62
White, Harvey E.....	Trade and Commerce.....	Daughter.....	230 97
White, Wilbert.....	National Revenue.....	Contributor.....	963 96
Williamson, Alice.....	Agriculture.....	".....	227 16
York, Gordon W.....	Marine.....	".....	615 04
Youhill, Joseph A.....	Post Office.....	".....	2,437 75
Young, M. A.....	Pensions and National Health	".....	25 78
			113,675 66

Total amount paid as Annuities to Contributors.....\$ 567,716 80

Total amount paid as Annuities to Dependents.....183,940 96

Total amount paid as Gratuities.....32,950 48

Total amount paid as Withdrawals.....113,675 66

Total Superannuation No. 5.....\$ 898,283 90

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act

Widow	Contributor	Department	Annual Allowance		Amount paid during 1929-30	
			\$	cts.	\$	cts.
Adams, Jessie L.....	J. F. Adams.....	National Revenue.....	200	28	216	97
Aikens, Sarah.....	Wm. Aikens.....	Railways and Canals....	72	66	72	60
Allen, Jennie.....	Horace Allen.....	Post Office.....	60	00	60	00
*Amor, Eliza S.....	W. Amor.....	National Revenue.....	260	65	213	69
Anderson, Dorothea S.....	Wm. P. Anderson.....	Marine and Fisheries....	700	00	699	96
Anderson, Elizabeth.....	Andrew Anderson.....	Immigration and Colon- ization.....	83	13	83	04
Archambault, Marie L.....	Alfred Archambault.....	Archives.....	168	28	182	26
Ardouin, Clara.....	G. G. V. Ardouin.....	Labour.....	346	50	346	44
Arland, Mary Jane.....	Wm. H. Arland.....	Post Office.....	315	00	341	25
Armstrong, Dora.....	B. M. Armsrong.....	Post Office.....	720	22	720	12
Ashton, Lucy Ann.....	Alfred E. Ashton.....	Post Office.....	158	34	158	28
Atcheson, Ada.....	A. Atcheson.....	National Defence.....	173	25	173	16
Atkins, Martha J.....	Wm. Atkins.....	National Revenue.....	333	68	333	60
Atwood, Julia.....	W. W. Atwood.....	National Revenue.....	140	00	139	92
Aumond, Leda P.....	Telmond Aumond.....	Secretary of State.....	208	12	208	08
Aumond, Mary E.....	Wm. H. Aumond.....	National Defence.....	330	31	330	24
Austin, Agnes.....	J. J. Austin.....	Post Office.....	125	84	136	24
Austin, Clara.....	T. B. S. Austin.....	Post Office.....	120	00	120	00
Austin, Mary J.....	Wm. A. Austin.....	Indian Affairs.....	126	00	42	00
Avery, Margaret.....	Wm. R. Avery.....	Post Office.....	262	50	262	44
Bacon, Ellen F.....	Thos. Bacon.....	National Defence.....	126	00	126	00
Balcom, May Jane.....	J. H. Balcom.....	Finance.....	332	50	332	40
Barber, Charlotte V.....	Edward C. Barber.....	Auditor General's Office	306	24	306	24
Barber, Elizabeth.....	Ben F. Barber.....	Post Office.....	134	75	134	64
Bare, Catherine.....	A. Pare.....	Railways and Canals....	46	62	34	92
Barker, Annie L.....	R. W. Barker.....	Post Office.....	455	00	454	92
Barnett, Laura.....	John Barnett.....	National Revenue.....	168	75	168	72
Barrett, Annie.....	Jas. Barrett.....	Post Office.....	280	00	279	96
*Bartlett, Ida L.....	J. H. Bartlett.....	Finance.....	156	00	7	13
Barton, Julia E.....	W. H. Barton.....	National Revenue.....	46	46	46	44
Bartram, Janet.....	Jos. Thos. Bartram.....	National Revenue.....	245	00	244	92
Bascom, Elizabeth A.....	Benj. Bascom.....	Post Office.....	132	00	132	00
Bate, Beatrice N.....	Chas. W. C. Bate.....	Agriculture.....	500	72	542	36
Battle, Katherine M.....	Timothy Battle.....	Railways and Canals....	69	76	69	72
Battle, Rachel E.....	John Battle.....	National Revenue.....	131	75	131	64
Bayard, Annie E.....	Gilbert A. Bayard.....	National Revenue.....	266	73	266	64
Beatty, Margaret L.....	W. J. Beatty.....	Post Office.....	375	88	344	52
Beauchesne, Caroline.....	P. C. Beauchesne.....	National Revenue.....	175	00	174	95
Beaudoin, Philomene.....	Jos. Beaudoin.....	Interior.....	70	58	70	56
*Beaulieu, Rose Alba.....	Arthur H. Beaulieu.....	Printing and Stationery..	85	00	2	12
Beckwith, Cordelia R.....	Robert Nelson Beckwith..	National Revenue.....	217	50	217	44
Belair, Victoria L.....	A. P. Belair.....	National Revenue.....	139	38	139	32
Bell, Ethel B.....	E. B. Bell.....	Post Office.....	196	00	580	88
Belleau, Elise L.....	Narcisse L. S. Belleau....	National Revenue.....	69	79	69	72
Belliveau, Genevieve.....	A. H. Belliveau.....	Marine and Fisheries....	301	60	301	56
Belton, Margaret K.....	F. S. Belton.....	National Revenue.....	212	50	212	40
Belyea, Maria L.....	Theodore H. Belyea.....	National Revenue.....	392	19	392	16
Bennett, Katherine E.....	Fred G. Bennett.....	National Revenue.....	472	24	472	20
Bennett, Mary Alice.....	John Bennett.....	Finance.....	164	33	164	28
Bennetts, Minnie.....	Francis K. Bennetts.....	Privy Council.....	676	40	676	32
Bender, Eva Alma.....	Hiram Bender.....	National Revenue.....	112	98	112	92
Benson, Alice Maud.....	Martin Benson.....	Indian Affairs.....	438	96	438	96
Berney, Elizabeth.....	Thos. Berney.....	Post Office.....	204	14	204	12
Berube, Marie L.....	P. A. Berube.....	National Revenue.....	125	37	48	98
Bickle, Charlotte H.....	John W. Bickle.....	Interior.....	219	19	219	12
Bill, Margaret A.....	Caleb R. Bill.....	National Revenue.....	101	85	101	76
Billings, Charlotte E.....	Braddish Billings.....	Interior.....	55	00	50	38
Bilodeau, Rebecca.....	Edmond Bilodeau.....	Post Office.....	185	84	185	76
Birch, Margaret H.....	C. S. Birch.....	Trade and Commerce....	203	90	203	88
Blair, Rebecca.....	William Blair.....	Post Office.....	186	00	186	00
Blais, Elzire B.....	J. C. Blais.....	Public Works.....	111	10	111	00
Blamey, Marion J.....	George F. Blamey.....	National Revenue.....	179	63	179	52
*Blanchard, Isabella M.....	Wm. M. K. Blanchard.....	Post Office.....	86	25	70	41
Blethen, Clara Belle.....	Chas. W. Blethen.....	National Revenue.....	294	00	294	00

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance	Amount paid during 1929-30
			\$ cts.	\$ cts.
<i>Bliss, Kate F.</i>	<i>T. A. D. Bliss</i>	<i>National Revenue</i>	490 00	468 18
Boivin, Josephine V.....	Charles A. Boivin.....	National Revenue.....	160 00	159 96
Boneberg, Caroline D.....	E. W. Boneberg.....	Railways and Canals.....	27 95	27 84
Bonnick, Sarah C.....	Wm. Bonnick.....	Post Office.....	260 07	260 04
Botterell, Annie.....	H. A. Botterell.....	House of Commons.....	101 46	101 40
Botterell, Mary L.....	Edward Botterell.....	House of Commons.....	420 00	420 00
Boulanger, Caroline.....	Arthur Boulanger.....	Public Works.....	40 38	40 32
Boulet, Blanche T.....	Albert Boulet.....	Post Office.....	280 00	279 96
Bourgeois, Emma.....	Jos. Bourgeois.....	Post Office.....	69 00	69 00
Bourinot, Isabelle.....	Sir John G. Bourinot.....	House of Commons.....	561 00	561 00
Bourret, Sara D.....	E. A. Bourret.....	National Revenue.....	175 00	174 96
Bown, Eliza P.....	T. S. Bown.....	National Revenue.....	182 03	181 92
Boyle, Mary Agnes.....	Patrick Boyle.....	National Revenue.....	157 40	
Bradley, Margaret.....	Casper W. Bradley.....	Railways and Canals.....	78 43	71 83
*Brennan, Elizabeth.....	John Brennan.....	National Revenue.....	329 00	273 21
Brennan, Jessie.....	Thos. Brennan.....	Post Office.....	115 38	105 71
Brennan, Margaret F.....	Pat. F. Brennan.....	Post Office.....	158 18	158 16
Brenot, Delphine.....	Honore Brenot.....	Post Office.....	222 28	222 24
Brittain, Dora Joyce.....	Alfred Brittain.....	Post Office.....	56 00	51 26
*Brophy, Elizabeth M.....	Geo. P. Brophy.....	Public Works.....	525 00	481 25
Brophy, Fannie L.....	Wm. M. Brophy.....	Finance.....	171 60	171 60
Browne, Sarah Alice.....	Alfred Browne.....	Post Office.....	210 00	210 00
Budge, Phoebe.....	Benjamin Budge.....	Post Office.....	170 13	170 04
Buist, Amelia E.....	Andrew Buist.....	National Revenue.....	57 00	57 00
Bunel, Isabel E.....	Edmond L. Bunel.....	Post Office.....	154 11	154 08
Bunting, Jane.....	Chas. E. Bunting.....	National Revenue.....	72 00	72 00
Burke, Bridget.....	Timothy Burke.....	National Revenue.....	365 25	365 16
Byers, Mary Agnes.....	Henry Byers.....	National Revenue.....	294 97	270 38
Byrnes, Honarah.....	John Byrnes.....	Trade and Commerce.....	509 62	509 52
Cairns, Annie.....	Wm. Cairns.....	House of Commons.....	461 44	384 50
Cairns, Minnie E.....	Thos. A. Cairns.....	Post Office.....	437 50	437 40
Cameron, Lucy O.....	Donald M. Cameron.....	National Revenue.....	280 00	279 96
Campbell, Constance.....	J. M. Campbell.....	Post Office.....	245 00	244 92
Campbell, Marie E.....	John Campbell.....	Post Office.....	88 08	88 08
*Campeau, M. Adeline.....	F. R. E. Campeau.....	National Revenue.....	503 61	320 29
Carleton, Isabella.....	John Carleton.....	Senate.....	280 00	279 96
Carleton, Julia.....	Robert Carleton.....	National Revenue.....	156 75	156 72
<i>Carr, Agnes S.</i>	<i>J. H. Carr</i>	<i>National Revenue</i>	<i>49 50</i>	
Carroll, Maria.....	Daniel Carroll.....	National Revenue.....	257 38	257 28
Carter, Amy J. T.....	Chas. H. Carter.....	Railways and Canals.....	76 50	76 44
Carter, Bella Phebe.....	James Carter.....	Post Office.....	210 00	210 00
Casault, Esther A.....	Louis J. Casault.....	Library of Parliament.....	210 00	210 00
Casgrain, Catherine.....	H. Casgrain.....	Agriculture.....	288 00	288 00
Cassells, Emma.....	Robert Cassells.....	Justice.....	352 00	351 96
Chadd, Ida.....	Geo. J. Chadd.....	National Revenue.....	22 00	
Chalmers, Elizabeth.....	Robert Chalmers.....	Mines.....	208 82	208 80
Chesley, Mary Stuart.....	H. N. P. Chesley.....	National Defence.....	490 00	489 96
Chilton, Jemima.....	J. P. Chilton.....	Post Office.....	186 92	186 84
Clappison, Mary.....	Thos. Clappison.....	National Revenue.....	280 00	279 96
Clark, Amelia E.....	Jas. A. Clark.....	National Revenue.....	158 97	158 88
Clark, Bertha.....	Jas. S. Clark.....	Post Office.....	189 00	189 00
Clarke, Margaret M.....	Patrick Clarke.....	Post Office.....	90 00	90 00
Clark, Sarah M.....	J. C. Clark.....	Post Office.....	92 00	91 92
Clarkin, Annie.....	John T. Clarkin.....	Post Office.....	105 22	105 12
*Claude, Rachel A.....	Benjamin Claude.....	Marine and Fisheries.....	70 00	63 92
Clayton, Clara M.....	Frank Clayton.....	Interior.....	279 00	279 00
Clewes, Charlotte E.....	John R. Clewes.....	Post Office.....	55 69	55 68
Clinch, Eleanor T.....	C. Clinch.....	National Revenue.....	56 00	55 92
Coburn, Florence H.....	Alex. H. J. Coburn.....	Post Office.....	238 00	257 79
Codd, Katherine F.....	H. J. Codd.....	National Revenue.....	144 07	144 00
Code, Helen C.....	Thos. J. Code.....	Trade and Commerce.....	748 86	748 80
Coffin, Jessie May.....	Frederick Coffin.....	Finance.....	344 14	344 04
*Coldwell, Emily Mary.....	Aubrey B. Coldwell.....	National Revenue.....	216 67	180 50
Colette, Rosalie.....	Jacques Colette.....	Railways and Canals.....	84 63	84 60

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance		Amount paid during 1929-30	
			\$	cts.	\$	cts.
Collier, Ellen E.....	Chas. H. Collier.....	Railways and Canals....	82	76	199	89
Colson, Elizabeth F.....	Frederick Colson.....	Secretary of State.....	586	25	586	25
Connolly, Margaret.....	Peter Connolly.....	House of Commons.....	280	00	279	96
Corbell, Seraphine.....	Jos. Z. Corbell.....	National Revenue.....	532	25	532	20
Corbett, Sarah G.....	Howard Corbett.....	National Revenue.....	32	50	32	40
Costley, Charlotte M.....	A. Costley.....	Post Office.....	425	00	424	92
Cote, Elmina.....	Pierre M. Cote.....	Justice.....	700	00	699	96
Cote, Julia.....	Jos. A. Cote.....	Interior.....	660	00	715	00
Courtney, Adelaide M.....	J. J. Courtney.....	National Revenue.....	210	12	210	12
Courtney, Mary E. S.....	J. M. Courtney.....	Finance.....	875	00	874	92
*Cousins, Florence J.....	Hugh T. Cousins.....	Post Office.....	208	18	132	94
*Crawford, Elizabeth.....	John Crawford.....	Post Office.....	252	00	168	00
Crawford, Isabella A.....	S. Crawford.....	National Revenue.....	239	95	239	88
Crocker, Victoria A.....	Wm. Crocker.....	Post Office.....	204	00	204	00
Culhane, Margaret.....	Patrick Culhane.....	National Revenue.....	97	50	113	68
Cullis, Ada Eliza.....	Wm. Cullis.....	Marine and Fisheries....	51	75	51	72
Culross, Christina.....	Charles Culross.....	Post Office.....	88	98	103	74
Dalton, Catherine J.....	James Dalton.....	House of Commons.....	490	00	489	96
Dalton, Margaret J.....	Robert G. Dalton.....	Indian Affairs.....	297	50	297	48
Damery, Abbie J.....	Thos. J. Damery.....	Post Office.....	40	60	43	94
Daoust, M. E. L.....	Joseph A. Daoust.....	Trade and Commerce....	264	83	264	72
D'Auray, Clarisse.....	Louis D'Auray.....	Agriculture.....	238	77	238	68
Daveluy, Marie Ann.....	Georges Daveluy.....	National Revenue.....	72	00	72	00
Davis, Alice M.....	John C. Davis.....	National Revenue.....	158	30	158	28
Davis, Flora B.....	Rupert G. Davis.....	Justice.....	232	00	231	96
Davis, Frances Julia.....	John Davis.....	Interior.....	490	00		
Davison, Lucille D.....	Thos. E. Davison.....	Finance.....	202	67	202	56
Dawson, Maria.....	Francis Dawson.....	Railways and Canals....	23	21	23	16
DeCelles, Marie E.....	A. D. DeCelles.....	Library of Parliament....	943	06	942	96
Demare, Elva L.....	J. G. Demare.....	National Revenue.....	170	10	99	19
Denneny, Jane.....	Jas. Denneny.....	Railways and Canals....	116	90	116	88
D'Entrement, Frances.....	J. A. D'Entrement.....	National Revenue.....	48	00	60	00
Dickieson, Harriet.....	M. G. Dickieson.....	Finance.....	336	00	336	00
Dixon, Margaret M.....	Frederick A. Dixon.....	Railways and Canals....	591	18	591	12
Dobbin, Margaret.....	W. L. Dobbin.....	National Revenue.....	257	54	278	98
Donaldson, Mary E.....	J. R. Donaldson.....	Post Office.....	257	40	235	95
Dorais, Marie B.....	N. A. Dorais.....	Post Office.....	218	83	648	52
Dorman, Jane H.....	W. H. Dorman.....	Post Office.....	280	00	279	96
Douglas, Emily.....	Peter B. Douglas.....	Interior.....	134	18	134	16
Doyle, Mary R.....	Jas. J. Doyle.....	Post Office.....	139	20	139	20
Doyon, F. M.....	J. A. Doyon.....	National Revenue.....	490	00	489	96
Driscoll, Sarah A.....	James Driscoll.....	Railways and Canals....	28	25	28	20
*Drouillard, Genevieve.....	Albert Drouillard.....	National Revenue.....	205	92	34	32
Drouin, Cedulie.....	Alphonse Drouin.....	Secretary of State.....	399	00	399	00
Dubé, Rose A.....	L. J. A. Dubé.....	Secretary of State.....	236	57	236	52
*Dubé, Victoire.....	Lucien Dubé.....	House of Commons.....	350	00	269	96
Dufresne, Lucie L.....	F. A. Dufresne.....	Post Office.....	185	94	185	88
Dufresne, Mary A.....	L. F. Dufresne.....	Finance.....	159	45		
Duggan, Annie.....	E. J. Duggan.....	House of Commons.....	436	00	435	96
Dundas, Christina L.....	Jas. Dundas.....	Finance.....	163	20	163	20
Dunlop, Sarah.....	Jas. H. Dunlop.....	Library of Parliament....	140	00	139	92
Dunne, Louise P.....	John P. Dunne.....	National Revenue.....	176	67	176	64
Dunnett, Charlotte E.....	E. H. Dunnett.....	Post Office.....	313	06	312	96
Dupont-Hebert, C. B.....	Chas. Dupont-Hebert.....	National Revenue.....	272	00	271	92
du Sault, Euphemie D.....	Remi du Sault.....	Post Office.....	31	79	94	11
Eckersley, Georgia Roe.....	John Eckersley.....	National Revenue.....	238	00	237	96
Edgar, Margaret.....	Wm. Edgar.....	Post Office.....	244	13	244	08
Egencer, Mary L.....	A. Egencer.....	National Revenue.....	262	50	262	44
Elliott, Margaret.....	James H. Elliott.....	Post Office.....	105	39	105	36
Ellis, Agnes.....	Geo. Ellis.....	Post Office.....	272	00	271	92
Ellis, Mary A. A.....	Wm. Ellis.....	Railways and Canals....	246	50	267	02
Embury, Ida May.....	J. Embury.....	Post Office.....	51	13	51	12
Erwin, Rhoda.....	Walter Erwin.....	Marine and Fisheries....	101	50	101	40
Evans, Kate D.....	Albert H. Evans.....	Post Office.....	198	59	181	94

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance		Amount paid during 1929-30	
			\$	cts.	\$	cts.
Fawcett, Myra.....	Edgar Fawcett.....	National Revenue.....	168	75	168	72
Fearnside, Ida J.....	J. H. Fearnside.....	Post Office.....	207	72	207	72
Fenerty, Louise M.....	Arthur Fenerty.....	Finance.....	224	25	224	16
Ferguson, Ann E.....	Wm. Ferguson.....	Post Office.....	227	50	227	40
Fergusson, Melanie A.....	R. C. Fergusson.....	Post Office.....	256	63	235	18
Firth, Alicia.....	Charles M. Firth.....	Marine and Fisheries.....	61	63	66	69
Fleming, Mary.....	Alexander Fleming.....	National Revenue.....	37	50	34	32
Fletcher, Sarah.....	E. H. Fletcher.....	Post Office.....	693	88	693	84
Flinn, Margaret.....	Wm. Flinn.....	Post Office.....	156	51	156	48
Flynn, Catherine.....	John Flynn.....	Post Office.....	225	56	668	45
Foley, Mary E.....	Jas. G. Foley.....	Privy Council.....	598	12	598	08
*Forest, Rose D.....	Eugene Forest.....	National Revenue.....	301	20	4	18
Fortier, Cecile G.....	J. J. O. Fortier.....	National Revenue.....	132	59	132	48
Fortier, Saphronie.....	Theo. Fortier.....	Public Works.....	351	82	322	41
Foster, Blanche.....	Geo. L. Foster.....	Justice.....	252	00	252	00
Foster, Margaret.....	Alfred Foster.....	Railways and Canals.....	101	06	101	04
Fox, Mary A.....	Thomas Fox.....	National Revenue.....	262	13	262	08
Franck, Leda.....	Raphael Franck.....	Post Office.....	112	68	112	68
Fraser, Angeline.....	L. C. Fraser.....	Post Office.....	334	01	333	96
Fraser, Jennie.....	J. R. Fraser.....	Post Office.....	205	00	204	96
Fraser, Mary J.....	John Fraser.....	Auditor General.....	875	00	874	92
Frechette, Annie H.....	Achille Frechette.....	House of Commons.....	488	06	488	04
Frechette, Elizabeth.....	G. Frechette.....	Post Office.....	95	00	94	92
Freeman, Mary E.....	N. P. Freeman.....	National Revenue.....	157	50	157	44
Friers, Sarah A.....	John Friers.....	Post Office.....	191	33	191	28
Frigon, Leocadie P.....	H. M. A. Frigon.....	Post Office.....	163	30	163	20
Frost, Martha.....	S. L. T. Frost.....	National Revenue.....	412	77	412	68
Fulton, Mary.....	Robert Fulton.....	National Revenue.....	66	00	66	00
Gagnon, Emma.....	S. Gagnon.....	R.C.M.P. Revenue.....	189	00	189	00
Garipey, Marie A.....	J. B. Garipey.....	Post Office.....	86	00	85	92
Garland, Katherine.....	N. S. Garland.....	Finance.....	266	47	266	40
Gass, Blanche E.....	Wm. H. Gass.....	Finance.....	245	00	244	92
*Gaudin, Agnes.....	J. Gaudin.....	Marine and Fisheries.....	185	55	24	93
Gaudry, A. L.....	B. T. Gaudry.....	Post Office.....	199	61	199	56
Genest, Rose.....	J. A. Genest.....	Post Office.....	184	00	183	96
Gerald, Alice M.....	A. S. Gerald.....	National Revenue.....	105	00	113	75
*Gerald, Elizabeth H.....	W. J. Gerald.....	National Revenue.....	875	00	783	78
Gerald, Lizzie.....	W. H. Gerald.....	National Revenue.....	374	00	373	92
Gill, Eliza A.....	Wm. H. Gill.....	Post Office.....	240	00	240	00
Gill, Isabella.....	Wm. Gill.....	Interior.....	437	50	437	40
Gillie, Mary.....	John Gillie.....	Railways and Canals.....	88	59	73	80
*Gingras, Marie P.....	J. F. Gingras.....	House of Commons.....	289	00	198	07
Giroux, Mary.....	O. J. Giroux.....	National Revenue.....	245	00	244	92
*Glover, Frances.....	John E. Glover.....	Railways and Canals.....	85	70	7	14
Godson, Mary M.....	Ernest Godson.....	Post Office.....	164	67	164	64
Goodeve, Chloe E.....	W. M. Goodeve.....	Post Office.....	430	21	466	05
Gouin, Adelaide.....	Jas. A. Gouin.....	Interior.....	700	00	699	96
Gouin, Erilie M.....	Chas. Gouin.....	Post Office.....	210	00	210	00
*Gould, Mary E.....	T. D. Gould.....	National Revenue.....	217	00	24	11
Goulet, Marie O. C. S.....	L. C. I. Goulet.....	Post Office.....	249	60	256	30
Grafton, Mary.....	W. H. Grafton.....	Post Office.....	224	00	223	92
Gray, Elizabeth.....	H. H. O. Gray.....	National Revenue.....	367	50	199	03
Greaves, Marie Z.....	Walter Greaves.....	Post Office.....	366	26	366	24
Greenfield, Eliza.....	J. R. M. Greenfield.....	Post Office.....	593	18	593	16
Guerin, Aurore C.....	L. J. Guerin.....	National Revenue.....	198	84	198	84
Hagarty, Henrietta.....	H. B. Hagarty.....	National Revenue.....	270	60	270	60
Hagerman, Alvina V.....	J. G. Hagerman.....	National Revenue.....	186	94	186	84
Halkett, Isabel.....	J. B. Halkett.....	Marine and Fisheries.....	476	88	476	88
Hall, Beatrice.....	Chas. R. Hall.....	National Revenue.....	189	00	189	00
Hall, Elsie M.....	John P. Hall.....	Post Office.....	271	01	270	96
Hall, Oriessa.....	Jas. M. Hall.....	Post Office.....	267	58	267	48
Hambly, Mary A.....	P. H. Hambly.....	National Revenue.....	102	61		
Hamilton, Mary.....	Andrew Hamilton.....	Railways and Canals.....	122	40	122	40
Harding, Ida K.....	F. H. Harding.....	Marine and Fisheries.....	315	00	315	00

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance		Amount paid during 1929-30	
			\$	cts.	\$	cts.
Harney, Mary.....	Thos. Harney.....	National Revenue.....	262	50	262	44
Harrington, Florence.....	W. H. Harrington.....	Post Office.....	616	88	616	80
Harris, Emma J.....	H. J. Harris.....	Post Office.....	33	20	33	12
Harron, M. E.....	R. J. Harron.....	Post Office.....	135	82	135	72
Hassard, Eva F.....	Richard Hassard.....	Post Office.....	397	45	397	44
Hassard, Annie W.....	T. W. D. Hassard.....	Post Office.....	245	00	244	92
Hatch, Caroline.....	Walter Hatch.....	Interior.....	94	88	94	80
Hayes, Emily C.....	Edwin C. Hayes.....	Auditor General's Office	472	50	472	44
Heath, Christina.....	Daniel Heath.....	Railways and Canals....	32	25	32	16
Henderson, Charlotte A.....	James Henderson.....	Post Office.....	458	88	458	88
Henry, Jane.....	J. R. Henry.....	National Revenue.....	57	19	57	12
Herschmer, Ethel J.....	L. W. Herschmer.....	R.C.M.P.....	286	00	285	96
Herst, Dinah.....	Samuel Herst.....	Post Office.....	72	00	72	00
Hicks, Lessie A.....	Amos Hicks.....	Post Office.....	396	67	396	60
Hill, Almira A.....	Arthur M. Hill.....	National Revenue.....	173	33	173	28
Hilton, Frances P.....	Geo. W. Hilton.....	Post Office.....	147	72	160	03
Hilyard, Bertha I.....	F. S. Hilyard.....	Post Office.....	128	00	379	30
Hiscott, Frances S.....	Wm. C. Hiscott.....	Post Office.....	282	66	306	15
Hobbs, Agnes.....	G. N. Hobbs.....	National Revenue.....	178	63	178	56
Holder, Lillie J.....	Geo. W. Holder.....	House of Commons.....	175	00	174	96
Howe, Margaret C.....	G. J. Howe.....	Railways and Canals....	148	28	135	85
Hudson, Kate A.....	A. B. Hudson.....	Auditor General's Office	400	00	399	96
Hunt, Bessie.....	Geo. A. Hunt.....	Post Office.....	211	61	211	56
Hurley, Annie.....	Robert Hurley.....	Railways and Canals....	103	34	43	05
Hyatt, Mary E.....	F. F. Hyatt.....	Post Office.....	450	86	450	84
Iler, S. Marguerite.....	B. Iler.....	National Revenue.....	490	00	507	08
Ironside, Caroline.....	Geo. A. Ironside.....	National Revenue.....	194	25	194	16
James, Sophia.....	W. H. James.....	Post Office.....	69	00	69	00
Jarvis, Ethel C.....	E. F. Jarvis.....	National Defence.....	758	33	758	28
Jenkins, Susan J.....	Geo. Jenkins.....	National Revenue.....	141	63	141	60
Jessop, Mary S.....	W. G. Jessop.....	Post Office.....	184	40	184	32
Johnson, Christina.....	Jos. Johnson.....	Post Office.....	315	00	315	00
Johnstone, Emily M.....	W. J. Johnstone.....	Post Office.....	700	00	159	93
Johnstone, Jane L.....	Geo. E. Johnstone.....	National Revenue.....	143	52	143	52
Joule, Ellen.....	A. J. Joule.....	National Revenue.....	95	00	102	83
Keating, Laura M.....	M. E. Keating.....	National Revenue.....	174	86	174	84
Keeler, Eliza A.....	Geo. S. Keeler.....	National Revenue.....	144	14	144	12
Keith, Georgie.....	Jas. T. Keith.....	Post Office.....	315	00	315	00
Kelly, Margaret.....	Mathew D. Kelly.....	Marine and Fisheries....	173	33	173	28
Kennedy, Maude A.....	Robert D. Kennedy.....	National Revenue.....	315	00	315	00
Kent, Susan C.....	S. B. Kent.....	Marine and Fisheries....	487	08	487	08
Keyes, Helen.....	James Keyes.....	Railways and Canals....	41	76	45	24
King, Augusta F.....	Wm. F. King.....	Interior.....	666	11	666	00
Kinloch, Emily G.....	Henry Kinloch.....	Interior.....	154	24	154	20
*Kirkpatrick, Mary K.....	Robt. Kirkpatrick.....	National Revenue.....	105	00	284	95
Knauff, Henrietta.....	Henry Knauff.....	Post Office.....	179	61	194	48
Kreps, Rose Ann.....	Wm. H. Kreps.....	Post Office.....	280	00	279	96
Lacasse, Lioza M.....	Louis T. Lacasse.....	Interior.....	110	00	109	92
Lafontaine, Eugenie.....	A. M. Lafontaine.....	National Defence.....	155	91	155	88
Laframboise, Alphonsine.....	L. J. M. Laframboise.....	House of Commons.....	560	97	560	88
Lague, Melvina.....	Philippe Legace.....	Post Office.....	84	00	84	00
Lally, Annie.....	P. J. Lally.....	Post Office.....	168	71	168	60
Lambe, Mable M.....	L. M. Lambe.....	Mines.....	594	13	643	63
Laporte, Clara L.....	Geo. Laporte.....	National Revenue.....	204	00	204	00
Larochelle, Flora.....	Norbert Larochelle.....	Printing and Stationery	287	35	287	28
Larose, Marie M.....	A. Larose.....	Post Office.....	255	00	151	49
Larue, Marie E. C.....	E. P. Larue.....	National Revenue.....	245	06	244	92
Latouche, Anna.....	A. Latouche.....	National Revenue.....	202	92	202	92
Laurin, Marie E.....	A. Laurin.....	National Revenue.....	202	67	202	56
Lawlor, Elizabeth.....	R. A. Lawlor.....	National Revenue.....	105	00	113	75
Leblanc, Azilda.....	Pierre Leblanc.....	Railways and Canals....	88	55	88	44
Lee, Frances A. R.....	H. P. Lee.....	Post Office.....	174	66	174	60
Lee, Sarah Ann.....	Ed. Lee.....	National Revenue.....	251	81	251	76
Lefebvre, Alphonsine.....	G. Lefebvre.....	Post Office.....	255	21	255	12

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance	Amount paid during 1929-30
			\$ cts.	\$ cts.
Legendre, Letitia.....	J. B. Z. Legendre.....	Post Office.....	198 00	198 00
*Leggett, Mary A.....	John E. Leggett.....	Railways and Canals....	140 00	109 83
Lelacheur, Sarah J.....	C. P. Lelacheur.....	National Revenue.....	42 00	42 00
Lemieux, Emma E.....	E. E. Lemieux.....	National Defence.....	502 67	502 56
Lemieux, J. A.....	G. Lemieux.....	Interior.....	282 78	282 72
Lepage, Alphonsine.....	Victor Lepage.....	Public Works.....	116 00	115 92
Leslie, Margaret.....	John Leslie.....	Justice.....	491 46	491 40
Lesueur, Lottie A.....	Chas. P. Lesueur.....	Post Office.....	437 50	437 40
Letson, Lucretia M.....	E. E. Letson.....	National Revenue.....	60 00	60 00
Levasseur, P. V.....	Naz. Levasseur.....	Interior.....	228 47	190 30
Lewis, Evelyn C.....	R. A. Lewis.....	Trade and Commerce....	344 33	344 28
Lewis, Mary.....	J. H. Lewis.....	Post Office.....	513 62	513 60
Little, Christina M.....	H. R. Little.....	Post Office.....	129 50	129 48
Lloyd, Ellen.....	F. E. Lloyd.....	National Revenue.....	92 90	92 88
Loan, Elizabeth A.....	J. B. Loan.....	Post Office.....	244 80	31 32
Lord, Margaret.....	A. Lord.....	Marine and Fisheries....	388 64	388 56
Losey, Susan.....	T. Losey.....	National Revenue.....	122 31	122 28
Lowe, Ella.....	W. H. Lowe.....	National Revenue.....	101 85	110 24
Lowry, Sarah E. M.....	John Lowry.....	National Revenue.....	87 00	87 00
Loyer, Eglophire.....	F. Loyer.....	Interior.....	325 65	325 56
Lynch, Charlotte M.....	Walter Lynch.....	National Revenue.....	116 00	125 58
Lyons, Helen.....	John M. Lyons.....	Railways and Canals....	403 00	436 54
Macarow, Mary E.....	P. H. Macarow.....	Post Office.....	315 00	315 00
Macaulay, Mary E.....	D. D. Macaulay.....	Post Office.....	187 20	187 20
Macdonald, Annie.....	C. J. Macdonald.....	Post Office.....	312 00	249 09
Macdonald, Clara A.....	A. B. Macdonald.....	National Revenue.....	363 00	363 00
Macdonald, Isabella.....	Dugald Macdonald.....	National Revenue.....	225 00	225 00
Macdonald, Selina V.....	C. W. Macdonald.....	Post Office.....	50 49	149 56
Macdonell, Ada M.....	H. P. Macdonell.....	House of Commons.....	296 44	296 40
Macfarlane, Margaret.....	Thos. Macfarlane.....	National Revenue.....	315 00	315 00
MacKenzie, Grace A.....	Arch. MacKenzie.....	National Revenue.....	238 00	237 96
Macleod, E. S.....	Alex. D. Macleod.....	National Revenue.....	140 19	140 16
Macpherson, Annie C.....	John Macpherson.....	National Defence.....	375 00	375 00
Macpherson, Ellen.....	Wm. Macpherson.....	Post Office.....	315 00	315 00
Macrae, Rachel A.....	Jas. A. Macrae.....	Indian Affairs.....	297 50	297 48
Madore, Marie H.....	J. A. Madore.....	Post Office.....	315 00	315 00
Mahon, Mary.....	Martin J. Mahon.....	Post Office.....	367 50	367 44
Maingy, Ann Maria.....	L. A. Maingy.....	Post Office.....	447 71	447 60
Malepart, Elizabeth.....	Geo. S. Malepart.....	Justice.....	525 48	525 48
Mankey, Mary W.....	Wm. J. Mankey.....	Post Office.....	146 56	146 52
*Marentette, Susan.....	Alex. Marentette.....	Trade and Commerce....	149 85	118 76
Marks, Emily E.....	John Marks.....	Finance.....	69 00	69 00
Marquette, E. J.....	L. F. Marquette.....	Post Office.....	203 72	203 64
Martin, Antoinette.....	R. P. Martin.....	National Revenue.....	212 38	212 28
Martin, Nora E.....	C. W. Martin.....	Post Office.....	302 17	302 16
Martineau, Marie H.....	F. R. Martineau.....	Post Office.....	208 00	207 96
Matheson, Agnes.....	John Matheson.....	National Revenue.....	91 60	91 56
Matthews, Marie E.....	Geo. Matthews.....	Finance.....	126 04	126 00
Matthews, Sarah A.....	John Matthews.....	National Revenue.....	55 25	55 20
May, Christina.....	G. M. May.....	National Revenue.....	162 00	162 00
Medlow, Catherine.....	Charles Medlow.....	Secretary of State.....	95 00	102 83
Meredith, Maria.....	W. E. Meredith.....	National Revenue.....	230 00	681 61
Miller, Agnes B.....	H. J. Miller.....	Interior.....	70 00	69 96
Miller, Matilda.....	Robt. S. Miller.....	Post Office.....	247 48	247 44
Milligan, Lena P.....	W. G. Milligan.....	Post Office.....	458 03	457 92
Milliken, Bessie.....	Edwin Milliken.....	National Revenue.....	227 50	
Moerschfelder, Jane.....	Jacob Moerschfelder.....	Post Office.....	415 92	415 92
Moffatt, Elizabeth Ann.....	Thos. P. Moffatt.....	Indian Affairs.....	151 64	151 56
Morgan, Margaret.....	James A. Morgan.....	Post Office.....	80 90	80 88
Monaghan, Minnie.....	John Monaghan.....	Post Office.....	168 00	154 00
Monkman, E. E.....	A. H. Monkman.....	Post Office.....	116 73	116 64
Morin, Alice R.....	A. E. Morin.....	Post Office.....	288 17	288 12
*Morin, Marie.....	Jules Morin.....	Marine and Fisheries....	113 58	61 34
Morin, Marie.....	Alfred Morin.....	National Revenue.....	266 01	788 33

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance		Amount paid during 1929-30	
			\$	cts.	\$	cts.
Murray, Flora.....	Alex. Murray.....	Post Office.....	222	22	222	12
McAdoo, Annie.....	R. J. McAdoo.....	National Revenue.....	153	92	153	84
*McAllister, Mary.....	Daniel McAllister.....	National Revenue.....	68	00	62	26
*McBeath, Lowell E.....	Allan McBeath.....	National Revenue.....	132	00	3	19
McCarthy, Mary L.....	Dennis F. McCarthy.....	Post Office.....	280	00	279	96
McClosky, Bridget.....	J. R. McCloskey.....	National Revenue.....	198	01	198	00
McCord, Harline.....	F. A. McCord.....	House of Commons.....	416	25	416	16
McCulloch, Mary L.....	John O. McCulloch.....	Post Office.....	287	16	304	91
McCoy, Anna C.....	Wm. McCoy.....	National Revenue.....	223	03	222	96
McDonald, Catherine.....	John McDonald.....	Justice.....	240	00	240	00
McDonald, Johanna.....	Jas. J. McDonald.....	National Revenue.....	46	56	46	56
McDonald, Mary C.....	J. F. McDonald.....	National Revenue.....	350	00	349	92
McElhinney, E. F.....	M. P. McElhinney.....	Marine and Fisheries.....	247	72	247	68
McFarlane, Katherine.....	Jas. D. C. McFarlane.....	Post Office.....	149	44	149	40
McGee, Elizabeth.....	John Jos. McGee.....	Privy Council.....	560	00	559	92
McGie, Clara E.....	D. B. McGie.....	National Revenue.....	70	00	116	60
McGinnis, Jane A.....	Arthur McGinnis.....	National Revenue.....	236	41	236	40
McGirr, Jane.....	John McGirr.....	Indian Affairs.....	367	50	367	44
McGuire, Etna.....	Horace McGuire.....	Post Office.....	549	61	549	60
McInnis, Emma.....	J. L. McInnis.....	National Revenue.....	72	25	84	28
McIntyre, Lizzie.....	C. C. McIntyre.....	Finance.....	186	00	232	50
McKay, Annie E.....	Hiram McKay.....	Indian Affairs.....	471	43	471	36
McKay, Ellen.....	James McKay.....	National Revenue.....	118	71		
McKay, Frances Jane.....	Samuel McKay.....	National Revenue.....	40	80	44	20
McKay, Sarah H.....	R. McKay.....	Marine and Fisheries.....	72	60	215	17
McKenna, C. A.....	W. G. McKenna.....	Post Office.....	63	00	63	00
McKenna, Mary.....	J. A. J. McKenna.....	Indian Affairs.....	390	00	390	00
McKenna, Mary S.....	W. J. McKenna.....	National Revenue.....	411	55	411	48
McKiel, Mary O.....	C. E. McKiel.....	National Revenue.....	241	87	221	65
McLagan, D.....	John McLagan.....	National Revenue.....	218	75	218	64
McLennan, E. A.....	A. McLennan.....	Post Office.....	189	00	189	00
McLeod, Jennie H.....	E. B. McLeod.....	Post Office.....	270	00	330	96
McLeod, M. E.....	W. W. McLeod.....	Post Office.....	485	63	485	52
McMinn, Caroline.....	W. J. R. McMinn.....	Finance.....	112	00	111	96
McMullan, Dorothy.....	H. J. McMullan.....	Post Office.....	183	21	183	12
McNamara, Gertrude.....	M. McNamara.....	National Revenue.....	149	19	149	16
Nelson, Ermina.....	Frank Nelson.....	National Revenue.....	504	00	504	00
Nelson, Jessie.....	Robert Nelson.....	Interior.....	232	30	232	20
Nevens, Alice M.....	J. Jas. Nevens.....	Post Office.....	131	44	131	40
Newall, Mary E.....	W. J. Newall.....	Post Office.....	60	00	75	00
Newman, Emma A.....	J. J. Newman.....	Railways and Canals.....	101	15	107	28
*Newsome, Charlotte.....	W. A. Newsome.....	Railways and Canals.....	145	83	57	22
Nicholson, Georgina.....	James Nicholson.....	Post Office.....	114	56	114	48
Noble, Margaret.....	W. H. Noble.....	Marine and Fisheries.....	183	85	183	84
Norcross, Mary L.....	A. A. Norcross.....	Post Office.....	377	40	345	95
Norris, Gertrude.....	Jas. G. Norris.....	Post Office.....	315	00	315	00
Northrop, Marilla.....	B. M. Northrop.....	Post Office.....	703	94	703	92
Nutting, Claire.....	Jas. P. Nutting.....	Trade and Commerce.....	236	13	236	04
O'Brien, Harriet.....	J. F. O'Brien.....	National Revenue.....	380	69	380	64
Odell, Elizabeth L.....	Henry Odell.....	National Revenue.....	78	90	78	84
O'Dowd, M. A.....	Francis O'Dowd.....	Post Office.....	238	00	237	96
O'Flaherty, M. A.....	E. J. O'Flaherty.....	National Revenue.....	80	59	73	81
O'Leary, Johanna.....	B. O'Leary.....	Railways and Canals.....	49	67	45	43
O'Loane, Teresa E.....	J. T. O'Loane.....	Post Office.....	270	67	270	60
Orr, Lizzie L.....	W. A. Orr.....	Post Office.....	585	76	585	72
Ouellette, Marie L.....	E. H. Ouellette.....	Indian Affairs.....	245	00	244	92
Quimet, Elizabeth B.....	Treffle Ouimet.....	Post Office.....	111	25	111	24
*Owen, Keziah.....	A. W. Owen.....	House of Commons.....	349	42	12	20
*Pawet, Euphémie E.....	Chas. Panet.....	Marine and Fisheries.....	174	65	17	46
Paquet, Marie E.....	E. T. Paquet.....	House of Commons.....	404	67	404	64
Park, Edith.....	W. A. Park.....	Post Office.....	294	00	294	00
Parker, Mary P.....	Fred John Parker.....	National Revenue.....	110	50	110	40
Parker, Winifred.....	Wm. Parker.....	National Revenue.....	210	00	210	00
Parkhill, Ida L.....	W. J. Parkhill.....	Post Office.....	164	14	164	04

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance	Amount paid during 1929-30
			\$ cts.	\$ cts.
Patrick, Mary.....	G. M. Patrick.....	Post Office.....	110 82	110 76
Patteson, Marie.....	T. C. Patteson.....	Post Office.....	580 00	579 96
Pelletier, Josephine.....	M. Pelletier.....	Post Office.....	190 72	190 68
Pereira, Lizzie.....	L. C. Pereira.....	Interior.....	490 00	489 96
Perry, Sarah.....	H. C. Perry.....	National Revenue.....	21 00	22 75
Phair, Maud.....	W. B. Phair.....	Post Office.....	198 00	198 00
Philibert, Emma.....	J. E. Philibert.....	Post Office.....	232 00	231 96
Phillips, Mabel.....	R. B. H. Phillips.....	Post Office.....	273 79	273 72
Phillips, Maria.....	W. R. Phillips.....	Public Works.....	88 38	88 32
Phillips, Mary H.....	Percy Phillips.....	Finance.....	115 38	115 32
Pierson, Ada J.....	Chas. Pierson.....	Post Office.....	271 02	270 96
Pirrie, Lillian.....	T. A. Pirrie.....	Post Office.....	76 32	89 04
Plumb, Josephine.....	Chrs. Plumb.....	Post Office.....	494 28	494 28
Plummer, G. M.....	H. Plummer.....	National Revenue.....	390 51	390 48
Plunkett, Ada.....	G. L. Plunkett.....	Post Office.....	367 50	367 44
Plunkett, Mary.....	Wm. Plunkett.....	National Revenue.....	225 75	225 72
Polkinghorne, Margaret.....	J. A. Polkinghorne.....	House of Commons.....	283 50	283 44
Pope, Ethelwyn.....	Geo. D. Pope.....	Interior.....	695 25	695 16
Pothier, Jean.....	D. L. Pothier.....	National Revenue.....	19 00	
Powell, Catherine.....	John Powell.....	Post Office.....	89 27	89 16
Prout, Mary.....	Frank Prout.....	National Revenue.....	32 50	32 40
Pryor, Isabella B.....	Oswald Pryor.....	National Revenue.....	258 61	258 60
Quain, Ellen.....	Redmond Quain.....	National Revenue.....	411 48	445 77
Quesnel, Sophie.....	Jules Quesnel.....	Railways and Canals.....	132 00	132 00
Quinlan, Julia.....	M. Quinlan.....	Post Office.....	175 00	160 38
Quinn, Catherine.....	J. D. Quinn.....	National Revenue.....	280 00	279 96
Ranahan, Mary.....	Peter Ranahan.....	Marine and Fisheries.....	77 00	70 51
Rand, Mary H.....	F. C. Rand.....	National Revenue.....	214 12	196 24
Ratchford, Evelyn A.....	C. E. Ratchford.....	National Revenue.....	262 50	124 87
Reinhardt, Margaret.....	H. N. Reinhardt.....	National Revenue.....	104 82	104 76
Renaud, Mathilde.....	Jos. E. Renaud.....	Post Office.....	256 67	256 56
Rennie, Helen B.....	Geo. Rennie.....	National Revenue.....	350 00	349 92
Reynolds, Elizabeth.....	W. G. S. Reynolds.....	Privy Council.....	32 50	32 40
Richard, Amanda C.....	A. Richard.....	Marine and Fisheries.....	105 00	80 50
Richards, Martha F.....	F. W. Richards.....	Post Office.....	111 96	331 83
Riddell, Annie.....	R. W. Riddell.....	Post Office.....	289 50	289 44
Robert, Sephora.....	P. Robert.....	Post Office.....	210 38	19 40
Robertson, Annie.....	Alex. Robertson.....	Trade and Commerce.....	70 50	76 31
Robertson, Catherine.....	J. N. Robertson.....	Post Office.....	87 81	95 03
Robidoux, Ellen.....	N. Robidoux.....	House of Commons.....	499 63	499 56
Robinson, Sophie.....	Geo. Robinson.....	National Revenue.....	72 50	72 48
Rogers, Catherine.....	Thos. Rogers.....	Governor General's Secretary's Office.....	156 60	156 60
Rogers, Helen.....	E. O'B. Rogers.....	National Revenue.....	149 27	149 16
Rogers, Susannah.....	C. C. Rogers.....	Interior.....	224 00	223 92
Rondeau, Aglae.....	U. Rondeau.....	Post Office.....	315 00	315 00
Rooney, Mary.....	John Rooney.....	Post Office.....	125 62	125 52
Rorison, Elizabeth.....	B. D. D. Rorison.....	Post Office.....	168 00	210 00
Ross, Ada.....	Alex. Ross.....	National Revenue.....	244 72	244 68
Ross, Bella J.....	C. W. Ross.....	Railways and Canals.....	392 00	391 92
Ross, Rebecca.....	Geo. Ross.....	Post Office.....	965 42	965 40
Rossiter, Hannah.....	J. E. Rossiter.....	Post Office.....	90 38	90 36
Rouleau, Josephine.....	F. Rouleau.....	House of Commons.....	210 00	210 00
Rourke, Elizabeth.....	J. E. Rourke.....	Finance.....	700 75	700 68
Rousseau, Caroline.....	H. B. Rousseau.....	Post Office.....	189 00	189 00
Roy, Fabiola.....	E. F. E. Roy.....	Public Works.....	189 00	189 00
Ryan, Margaret.....	Jeremiah J. Ryan.....	Post Office.....	131 46	131 40
Sandall, Mary A.....	H. P. Sandall.....	National Revenue.....	266 70	266 64
Scholfield, Mary C.....	Thos. Scholfield.....	National Revenue.....	93 54	93 48
Scholfield, Sarah.....	Fergus Scholfield.....	Marine and Fisheries.....	61 25	61 20
Schreiber, Julia.....	Sir C. Schreiber.....	Privy Council.....	1,050 00	1,050 00
Scott, Elizabeth.....	Andrew Scott.....	National Revenue.....	280 00	279 96
Shanacy, Jane F.....	Michael Shanacy.....	National Revenue.....	208 00	207 96
Shaw, Elizabeth.....	Abraham Shaw.....	National Revenue.....	555 33	555 24

Appendix No. 10—Continued

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—Continued

AMOUNTS paid to widows of deceased contributors to Superannuation under part I of the Superannuation and Retirement Act—Continued

Widow	Contributor	Department	Annual Allowance		Amount paid during 1929-30	
			\$	cts.	\$	cts.
Shaw, Louisa	Jas. F. Shaw	National Revenue	590	62	590	52
<i>Simard, Adelia</i>	<i>L. Simard</i>	<i>Railways and Canals</i>	<i>141</i>	<i>12</i>	<i>107</i>	<i>02</i>
Simpson, Jenny	J. B. Simpson	Auditor General's Office	315	00	315	00
Slattery, Elizabeth	Ralph Slattery	National Revenue	171	92	171	84
Slean, Eliza	John Slean	National Revenue	104	14	104	04
Sloan, Cassie E.	M. W. Sloan	Post Office	210	00	210	00
Smith, Agnes	Geo. Smith	National Revenue	155	90	155	88
Smith, Agnes B.	E. J. M. Smith	Public Works	428	46	428	40
Smith, Emily A.	Sidney Smith	Post Office	698	76	698	76
Smith, Gertrude E.	T. J. Smith	Post Office	280	00	326	62
*Smith, Jennie F.	Fred W. Smith	Indian Affairs	266	51	187	62
Smith, Margaret H.	George Smith	National Revenue	355	83	355	80
Soutter, Eliza	Alex. Soutter	Senate	367	50	367	44
<i>Spencer, Mary C.</i>	<i>J. H. Spencer</i>	<i>Post Office</i>	<i>280</i>	<i>00</i>	<i>97</i>	<i>98</i>
*Spereman, Annie	J. J. Spereman	National Revenue	248	00	25	99
Standish, Dorothy	J. G. Standish	National Revenue	339	56	339	48
Stanton, Sabina	E. P. Stanton	Post Office	536	29	536	28
Stayner, Jessie	T. A. Stayner	National Revenue	51	00		
Steckel, Mary	L. J. Steckel	Public Works	538	86	538	80
Steele, Mathilda	V. H. Steele	Marine and Fisheries	396	00	396	00
Steers, Annie	C. J. Steers	Interior	490	00	489	96
Steffens, Margaret	John Steffens	Railways and Canals	71	42	71	40
Stevens, Alicia	C. F. Stevens	National Revenue	133	00	132	96
Stewart, Isabel	E. N. S. Stewart	National Revenue	123	75	123	72
Stewart, Isabelle	Sam. Stewart	Indian Affairs	490	00	489	96
Stimpson, Kate	F. C. Stimpson	National Revenue	341	00	340	92
Stinson, Susan	Thomas Stinson	National Revenue	129	31	129	24
Stoddart, Helen	Jas. Stoddart	Post Office	198	27	198	24
Stratton, Rose	W. C. Stratton	National Revenue	517	05	516	96
Strongman, Mary	Wm. Strongman	Post Office	144	94	144	84
Strous, Ida	Jas. Strous	Post Office	145	55	145	44
*Sutherland, Kate	E. D. Sutherland	Auditor General's Office	1,050	00	691	25
Swan, Hannah	W. H. Swan	Post Office	231	00	231	00
Swinburn, Maria	A. R. Swinburn	Interior	218	32	218	28
<i>Symes, Bertha</i>	<i>P. Symes</i>	<i>Interior</i>	<i>396</i>	<i>67</i>	<i>191</i>	<i>90</i>
Talbot, Georgianna	Octave Talbot	Post Office	437	50	437	40
Taylor, Elizabeth	Charles Taylor	National Revenue	78	00	78	00
Tetu, Emilie D.	J. D. H. Tetu	Post Office	165	26	165	24
Therault, Rose	J. A. Therault	Public Works	215	42	215	40
Thompson, Irene	H. P. Thompson	Post Office	273	00	273	00
Thompson, Theresa	Robt. Thompson	Post Office	312	81	286	66
Toller, Annie F.	Fred Toller	Finance	558	54	558	48
Towers, Elizabeth	Geo. T. Towers	Post Office	45	00	45	00
Trainor, Ellen	B. Trainor	Post Office	210	00	210	00
Travis, Minnie	L. W. Travis	Post Office	108	00	108	00
Tupper, Rhoda L.	C. W. Tupper	National Revenue	98	73	123	30
<i>Turner, Martha A.</i>	<i>H. H. Turner</i>	<i>Interior</i>	<i>358</i>	<i>75</i>	<i>144</i>	<i>46</i>
Tyson, Elizabeth	A. M. Tyson	National Revenue	91	95	91	92
Vankoughnet, Lucy	L. Vankoughnet	Indian Affairs	528	00	528	00
Vavasour, Isobel	E. W. Vavasour	Post Office	245	00	244	92
<i>Venning, Adelia A.</i>	<i>Wm. H. Venning</i>	<i>Marine and Fisheries</i>	<i>198</i>	<i>00</i>	<i>553</i>	<i>85</i>
Venning, Frances	R. N. Venning	Marine and Fisheries	495	34	495	24
Verner, Helene	J. W. D. Verner	Agriculture	280	00	279	96
Verreault, Exilia	J. E. Verreault	Public Works	37	50	3	12
Verret, Annie	G. C. Verret	Public Works	44	64	44	64
Waller, Annie	John Waller	National Revenue	56	31	56	28
Walsh, Alice	Robert Walsh	Post Office	245	00	224	51
Walsh, Helen	W. J. Walsh	Patent and Copyright	273	67	273	60
Warwickier, Lydia	F. S. Warwickier	Post Office	181	84	181	80
Waterman, Anne	W. L. Waterman	Post Office	288	96	288	96
<i>Watson, Mary</i>	<i>J. W. Watson</i>	<i>Marine and Fisheries</i>	<i>304</i>	<i>50</i>	<i>36</i>	<i>24</i>
Weyms, Eva	Chas. Weyms	National Revenue	189	44	189	36
White, Adeline	E. White	National Revenue	146	21	146	16
White, Clara	F. White	R.C.M.P.	875	00	874	92

Appendix No. 10—Concluded

CIVIL SERVANTS WIDOWS ANNUITIES ACT, 1927—*Concluded*

AMOUNTS paid to widows of deceased contributors to Superannuation under Part I of the Superannuation and Retirement Act—*Concluded*

Widow	Contributor	Department	Annual Allowance	Amount paid during 1929-30
			\$ cts.	\$ cts.
White, Mary.....	C. W. White.....	Marine and Fisheries...	140 99	140 88
*Whittaker, Mary.....	W. C. Whittaker.....	Finance.....	437 50	255 15
Wilkes, Margaret.....	E. T. Wilkes.....	National Revenue.....	171 84	171 84
<i>Williams, Analina.....</i>	<i>T. Williams.....</i>	<i>Railways and Canals.....</i>	<i>445 50</i>	<i>152 19</i>
Willimott, Susan.....	C. W. Willimott.....	Interior.....	264 69	264 60
Williston, Kate.....	W. W. Williston.....	Marine and Fisheries...	43 50	43 44
Wilson, Annie.....	David Wilson.....	National Revenue.....	207 61	207 60
Winters, Melissa.....	Wm. Winters.....	Railways and Canals...	33 52	19 53
Wood, Emily.....	F. F. Wood.....	National Revenue.....	63 00	63 00
Worsnop, Mary.....	A. A. Worsnop.....	National Revenue.....	485 62	525 98
Wright, Harriet.....	J. P. Wright.....	Railways and Canals...	200 00	199 92
York, Jennie.....	Dunbar York.....	Post Office.....	210 00	210 00
				142,708 07

* Dead.

NOTE.—Those shown in *Italics* are annuitants who came under the Act during the fiscal year.

SUMMARY

	Payments on account of employees retired prior to March 31, 1929	Payments on account of employees retired during fiscal year ended March 31, 1930	Total payments during fiscal year
	\$ cts.	\$ cts.	\$ cts.
Superannuation No. 1, Revised Statutes, 1906, Chap. 17.....	521,189 98	10,062 60	531,252 58
Superannuation No. 2, Revised Statutes, 1906, Chap. 17.....	42,739 11	487 84	43,226 95
Superannuation No. 3, Printing Bureau.....	15,929 74		15,929 74
Superannuation No. 4, Public Service Retirement Act.....	631,293 08		631,293 08
Superannuation No. 5, Civil Service Superannuation Act, 1924	633,830 89	264,453 01	†898,283 90
Superannuation No. 6, Civil Servants Widows Annuities Act, 1927.....	133,813 49	8,894 58	142,708 07
Total Superannuation payments.....	1,978,796 29	283,898 03	2,262,694 32

† Including dependents of deceased employees.

Appendix No. 11

PUBLIC WORKS—CHARGEABLE TO INCOME

	\$	cts.	\$	cts.	\$	cts.
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.						
PUBLIC BUILDINGS						
<i>Nova Scotia—</i>						
Halifax—Immigration Building—Payment to Department of Railways and Canals for accommodation..	25,000	00				
Halifax—Quarantine Station—Improvements, repairs, etc.....	8,377	24				
Halifax—Repairs to buildings and wharfs at R.C.N. Barracks and H.M.C. Dockyard.....	27,561	19				
Halifax—Tractor for postal purposes.....	1,163	60				
Hantsport—Public Building.....	13,604	93				
North Sydney—Public Building—Addition.....	4,342	75				
Pictou—Public Building—Improvements, repairs, etc..	5,500	00				
Sherbrooke—Public Building.....	1,843	60				
Springhill—Public Building—Installation of fittings....	4,084	56				
Truro—Public Building—Addition.....	4,925	46				
			96,403	33		
<i>Prince Edward Island—</i>						
Charlottetown—Public Building—Improvements and repairs.....			2,120	50		
<i>New Brunswick—</i>						
Buctouche—Public Building.....	28,913	69				
Ste. Croix—Building for Customs-Excise and Immigration purposes at International Bridge.....	6,270	18				
St. John Quarantine Station—Partridge Island—New pipe line.....	86	53				
St. John Quarantine Station—Partridge Island—Water supply.....	818	23				
St. John Quarantine Station—Partridge Island—Improvements, repairs, etc.....	15,097	50				
			51,186	13		
<i>Maritime Provinces Generally—</i>						
Dominion Public Buildings—Improvements, repairs, etc.....			49,999	44		
<i>Quebec—</i>						
Acton Vale—Public Building—Alterations.....	1,687	54				
Athabaska—Public Building—Improvements and repairs	3,000	00				
Beauharnois—Public Building.....	6,633	72				
Cowansville—Public Building.....	9,005	10				
Dominion Public Buildings—Improvements, repairs, etc.	109,997	94				
Farnham—Public Building—Enlargement.....	44	70				
Grand Mère—Public Building.....	3,342	18				
Grosse Isle Quarantine Station—Improvements, repairs, etc.....	11,012	36				
Huntingdon—Public Building.....	7	45				
La Tuque—Public Building.....	5,341	45				
Lennoxville—Public Building.....	11,844	40				
Maisonneuve—Public Building.....	180	30				
Montreal—Craig Street Drill Hall—Mastic floor.....	13,206	12				
Montreal—Immigration Detention Building—Improvements to heating.....	4,957	77				
Montreal—New Examining Warehouse—Improvements to heating.....	5,668	84				
Montreal—Postal Station in Notre Dame de Grâce.....	5	85				
Montreal—Stephens Building—Improvements, alterations and equipment.....	12,758	57				
Montreal—General Post Office—Installation of pickup table and alterations to fittings.....	3,790	00				
Montreal—Postal Station in Outremont Division.....	21,543	91				
Carried forward.....	224,028	20	199,709	40		

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	224,028	20	199,709	40		
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
PUBLIC BUILDINGS—Continued						
Quebec—Concluded						
Montreal—Postal Station "B"—Improvements and alterations.....	5,895	55				
Montreal—Towards purchase of Lavut Building for Postal Station "G".....	13,203	98				
Montreal—Old Examining Warehouse—Reconstruction.	60,616	55				
Quebec—Accommodation for military stores.....	6	10				
Quebec Citadel—Governor General's Quarters—Maintenance, etc.....	20,000	00				
Quebec—Customs House—Improvements and repairs...	7,053	45				
Quebec—Public Building—Installation of pickup table.	3,572	79				
Quebec—Postal improvements and installation at C.P.R. Station.....	4,817	77				
Quebec—Savard Park Hospital—Repairs, alterations and addition.....	65,963	63				
Richmond—Public Building—Improvements and repairs	2,500	00				
Rock Island—Customs-Excise Building.....	6,703	61				
St. Anne de Bellevue—Public Building.....	10,001	45				
St. Hyacinthe—Public Building—Addition and improvements.....	0	35				
St. Lambert—Public Building—Improvements and repairs.....	2,185	12				
Ste. Marie de Beauce—Public Building.....	4,616	22				
St. Roch de Quebec—Public Building—Improvements and repairs.....	2,286	00				
St. Romuald—Public Building.....	19,260	52				
Ste. Rose—Public Building.....	17,218	30				
St. Pascal—Public Building.....	3,054	75				
Thetford Mines—Armoury—Improvements and repairs.	873	97				
Victoriaville—Public Building.....	52	26				
Waterloo—Public Building.....	13,638	92				
Westmount—Armoury.....	13,186	80				
			500,736	29		
Ontario—						
Chatham—Public Building—Addition.....	13,612	74				
Dominion Public Buildings—Improvements, repairs, etc.....	124,996	46				
Exeter—Public Building.....	17,384	24				
Fort Frances—Public Building.....	35,107	13				
Halleybury—Addition to armoury.....	29,995	57				
Hamilton—Public Building—Alterations and repairs...	7,008	38				
Hamilton—Tractor for postal purposes.....	1,157	20				
Hawkesbury—Public Building—Addition.....	6,429	60				
Hespeler—Public Building.....	32,770	98				
Listowel—Public Building—Improvements and repairs...	1,600	00				
London—Westminster Hospital—Paving roadway.....	1,120	93				
Niagara Falls—Public Building.....	83,869	50				
Oshawa—Public Building—Installation of elevator and improvements, etc.....	2,994	63				
Ottawa—Departmental Buildings—Fittings.....	84,546	12				
Ottawa—Equipment for Post Office Department.....	20,266	72				
Ottawa—Forest Products Laboratory—Addition and improvements.....	5,884	29				
Ottawa—Government's share of cost of local improvements.....	37,991	67				
Ottawa—Laboratory for Department of Mines, Booth Street, and alterations.....	60,642	25				
Ottawa—Laboratory of Hygiene.....	84	26				
Ottawa—Post Office—Installation of pickup table.....	3,500	00				
Ottawa—Printing Bureau—Improvements to heating...	6,404	34				
Carried forward.....	577,367	01	700,445	69		

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	577,367	01	700,445	69		
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
PUBLIC BUILDINGS—Continued						
Ontario—Concluded						
Ottawa—Towards purchase of building for Government workshops.....	12,200	00				
Ottawa—Towards purchase of Daly Building.....	112,000	00				
Ottawa—West Block—Elevator.....	8,330	00				
Parkhill—Public Building—Improvements to heating...	2,057	00				
Port Arthur—Public Building—Addition and alterations.....	6	00				
Rockland—Government's share of cost of local improvements.....	1,200	00				
St. Mary's—Public Building—Improvements and repairs.....	4,756	70				
Sarnia—Public Building—Improvements to lighting.....	3,500	00				
Stratford—Public Building—Improvements and repairs.....	3,087	00				
Sturgeon Falls—Public Building.....	1,178	39				
Sudbury—Public Building—Addition and alterations....	7,296	50				
Timmins—Public Building.....	30,000	45				
Toronto—Customs House.....	138,005	12				
Toronto—Postal Station "A"—Mechanical equipment....	59,773	84				
Walkerville—Public Building—Improvements and repairs.....	4,374	95				
			965,132	96		
Manitoba—						
Brandon—Public Building.....	24,308	47				
Dauphin—Public Building—Addition.....	9,401	58				
Dominion Public Buildings—Improvements, repairs, etc.	15,818	87				
Emerson—Building for Customs and Immigration purposes.....	19,615	37				
Gretna—Public Building.....	3,098	76				
Portage La Prairie—Public Building—Installation of elevator.....	2,631	00				
Transcona—Public Building.....	25,545	54				
Winnipeg—Fort Osborne Barracks—Power plant.....	18,237	20				
Winnipeg—Fort Osborne Barracks—Mess building.....	34	10				
Winnipeg—Hospital for Department of Pensions and National Health.....	159,130	20				
Winnipeg—Post Office—Extension.....	80,273	17				
Winnipeg—Public Building—Improvements and alterations.....	5,112	03				
Winnipeg—Union Station—Tractor.....	1,232	00				
			364,438	29		
Saskatchewan—						
Battleford—Public Building—Improvements to heating.....	1,865	00				
Canora—Public Building.....	11,993	55				
Dominion Public Buildings—Improvements, repairs, etc.	16,455	40				
Gravelbourg—Public Building.....	23,487	37				
Indian Head—Forestry Building—Addition.....	4,271	88				
Indian Head—Forestry Station—Improvements and repairs.....	2,704	38				
Lloydminster—Public Building—Replacement after fire.	5,027	36				
Melville—Public Building.....	24,999	48				
Moose Jaw—Public Building—Improvements and repairs.....	1,760	00				
North Battleford—Immigration Building.....	3,612	90				
Prince Albert—Immigration Building.....	30,033	09				
Prince Albert—Public Building—Addition.....	30,000	00				
Regina—Armoury.....	41,874	73				
Regina—Post Office—Installation of pickup table.....	3,500	00				
Regina—Public Building—Addition.....	95,604	53				
Rosetown—Public Building.....	28,841	73				
Saskatoon—Post Office—Installation of pickup table....	3,500	00				
Carried forward.....	329,531	45	2,030,016	94		

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	329,531	45	2,030,016	94		
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
PUBLIC BUILDINGS—Continued						
<i>Saskatchewan—Concluded</i>						
Saskatoon—Public Building.....	380,608	79				
Swift Current—Public Building.....	48,176	69				
Tisdale—Public Building.....	5,732	14				
Weyburn—Public Building—Improvements and repairs..	2,493	98				
Wilkie—Public Building.....	7,097	07				
Yorkton—Public Building—Addition.....	12,474	24				
			786,114	36		
<i>Alberta—</i>						
Calgary—Customs Examining Warehouse—Improvements and alterations.....	3,871	04				
Calgary—Post Office—Installation of pickup table.....	3,537	72				
Calgary—Public Building.....	49,961	20				
Camrose—Public Building.....	1,344	52				
Dominion Public Buildings—Improvements, repairs, etc.	13,062	50				
Edmonton—Grain Inspection Building.....	1,444	22				
Edmonton—Immigration Building.....	5,691	96				
Edmonton—Public Building—Addition.....	558	51				
Falher—Immigration Building.....	2,425	92				
Redcliff—Armoury accommodation.....	1,258	25				
Red Deer—Public Building—Addition and alterations..	1,017	57				
Vegreville—Public Building.....	11,276	90				
Wainwright—Public Building.....	28,000	00				
			123,450	31		
<i>British Columbia—</i>						
Douglas—Immigration and Customs Building—To complete improvements.....	7,614	62				
Dominion Public Buildings—Improvements, repairs, etc.	36,364	89				
Esquimalt—General repairs and improvements at R. C.N. Barracks and H.M.C. Dockyard.....	19,556	52				
Kimberley—Public Building.....	7,037	18				
Port Alberni—Public Building—Improvements and alterations.....	610	00				
Rossland—Public Building—Reconstruction.....	23,000	00				
Trail—Public Building.....	17,076	62				
Vancouver—Grain Inspection Office—Addition.....	1,688	00				
Vancouver—Public Building—One year's interest at 5 per cent on mortgage of \$400,000.....	20,000	00				
Vancouver—Public Building—Improvements, repairs, etc.....	17,696	00				
William Head—Quarantine Station—Improvements, repairs, etc.....	3,992	89				
			154,630	72		
<i>Generally—</i>						
Experimental Farms—Replacements, repairs, improvements, etc.....	100,000	00				
Flags for Dominion Buildings.....	5,000	00				
Military Buildings—Repairs, fittings and additions.....	39,172	74				
Military Hospitals—Repairs and improvements.....	75,914	42				
Public Buildings Generally.....	39,247	85				
Purchase of stamp cancelling machines.....	88,785	54				
			348,120	55		
RENTS, REPAIRS, FURNITURE, HEATING, ETC.						
<i>Ottawa Public Buildings and Grounds—</i>						
Departments Generally—Char service, including \$150 to E. Snowden for firing the noon gun.....	384,677	29				
Elevator attendants.....	113,977	91				
Carried forward.....	498,655	20	3,442,332	88		

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	498,655	20	3,442,332	88		
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.— <i>Continued</i>						
PUBLIC BUILDINGS— <i>Concluded</i>						
RENTS, REPAIRS, FURNITURE, HEATING, ETC.— <i>Concluded</i>						
Ottawa Public Buildings and Grounds— <i>Concluded</i>						
Heating, including salaries of engineers, firemen and watchmen.....	415,225	24				
Lighting, including roads and bridges.....	99,982	68				
Rideau Hall, including grounds, improvements, furniture, maintenance, etc.....	59,998	85				
Rideau Hall—Allowance for fuel and light.....	19,000	00				
Repairs, improvements, additions and maintenance....	697,143	52				
Telephone service.....	105,000	00				
Water.....	44,999	65				
			1,940,005	14		
Dominion Public Buildings—						
Dominion Immigration Buildings—Repairs, improvements, additions, furniture, etc.....	23,480	73				
Dominion Quarantine Stations—Maintenance and repairs	9,826	25				
Fittings, general supplies and furniture.....	174,877	37				
Heating.....	402,645	13				
Lighting.....	224,821	11				
Power for running elevators, stamp-cancelling machines, etc.....	82,934	37				
Rents.....	1,799,414	49				
Salaries of caretakers, engineers, firemen, etc.....	1,096,025	62				
Supplies for caretakers, engineers, firemen, etc.....	49,801	50				
Victoria, B.C.—Astrophysical Observatory, Little Saanich Mountain—Maintenance, repairs and improvements.....	3,160	69				
Water.....	71,698	88				
Yukon—Public Buildings—Rents, repairs, fuel, light, water service and caretakers' salaries.....	25,144	41	3,963,830	55		
Total Public Buildings.....					9,346,168	57
HARBOURS AND RIVERS						
Nova Scotia—						
Argyle South—Wharf.....	1,797	82				
Arischat—Extension to groyne.....	1,114	06				
Bailey's Brook—Extension to pier.....	2,999	14				
Barrington Passage—Ice piers.....	17,727	09				
Blue Rocks—Breakwater repairs.....	1,171	01				
Bridgewater—Repairs and reconstruction of railway wharf.....	10,102	53				
Brooklyn—Dredging—The Mersey Paper Company, Limited, to contribute one-third of cost.....	61,993	52				
Brooklyn—Extension to breakwater.....	199	02				
Canning—Wharf repairs and improvements.....	4,780	01				
Cape St. Mary's—Groyne.....	1,813	19				
Clark's Harbour—Wharf.....	6,000	00				
Charles Cove—Breakwater extension.....	1,904	96				
Cheggogin Point—Breakwater extension.....	10,490	80				
Comeauville—Breakwater extension.....	1,411	43				
Digby—Dredging.....	251	76				
Digby Pier—Improvements.....	5,322	87				
Digby—Repairs and renewals to pier.....	5,980	75				
Diligent River—Wharf repairs.....	1,703	14				
Drum Head—Wharf repairs.....	4,014	07				
Dublin Shore—Breakwater repairs and extension.....	3,792	20				
Finlay Point—Harbour improvements.....	2,498	13				
Five Islands—Wharf repairs.....	2,505	81				
Carried forward.....	149,573	31			9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	149,573	31			9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
Nova Scotia—Continued						
Fourchu—Harbour Improvements—The British Metals Corporation (Canada) to contribute one-third of cost	11,424	84				
Fourchu—Wharf repairs.....	1,225	90				
Fox Island—Breakwater repairs.....	997	81				
Fox Island—Renewal of harbour protection.....	1,997	42				
Glace Bay—Wharf reconstruction.....	1,619	18				
Graff Beach—Breakwater repairs.....	2,627	40				
Grand Desert—Breakwater extension.....	1,000	00				
Grand Etang—Repairs to pier.....	2,973	97				
Grass Cove—Breakwater wharf.....	2,140	72				
Guysborough—Dredging.....	4,007	91				
Halifax—(Lawlor's Island Quarantine Station)—Wharf repairs.....	2,399	55				
Halifax—(Lawlor's Island Quarantine Station)—Wharf replacement.....	2,975	00				
Hantsport—Wharf repairs.....	2,998	04				
Harbours and Rivers Generally—Repairs and improvements.....	77,759	35				
Harbour au Bouche—Wharf repairs.....	1,399	19				
Inverness—Repairs to harbour works.....	3,599	22				
Jeddore—Wharf extension.....	1,495	27				
Ketch Harbour—Wharf.....	3,727	13				
Little Anse—Breakwater repairs.....	119	96				
Little Bras d'Or—Wharf.....	2,300	00				
Little Judique Ponds—Breakwater extension.....	6,397	70				
Little River Harbour—Breakwater.....	1,488	64				
Liverpool—Dredging.....	30,000	58				
Livingston's Cove—Dredging.....	62	42				
Lower Prospect—Wharf repairs.....	302	67				
McNutt's Island—Repairs to harbour protection.....	1,297	41				
Malignant Cove—Wharf extension—To complete.....	1,126	75				
Margaree Harbour—Repairs and extension to harbour works.....	4,498	15				
Margaree Island—Wharf extension.....	3,198	52				
Meteghan—Breakwater extension.....	5,124	20				
Morden—Breakwater repairs.....	1,985	07				
Murphy's Pond—Port Hood—Harbour improvements.....	4,243	97				
New Harbour (Antigonish-Guysborough Co.)—Pier.....	4,082	29				
Newport Landing—Wharf repairs.....	1,667	58				
Nyanza—Wharf repairs.....	1,255	22				
Osborne—Wharf reconstruction.....	1,595	80				
Owl's Head—Wharf repairs.....	2,200	07				
Parrsboro—Repairs to harbour protection works.....	3,493	88				
Peas Brook—Wharf.....	12,496	52				
Petit de Grat—Dredging.....	16,448	11				
Pictou—Repairs to railway wharf.....	9,991	80				
Pleasant Harbour—Wharf repairs.....	1,398	26				
Port Greville—Repairs to breakwater and protection work.....	2,297	42				
Port Maitland—Breakwater extension.....	49,998	23				
Pye's Head—Wharf.....	5,000	90				
St. Francis Harbour—Breakwater extension, dredging, and groyne.....	29,607	32				
Sandford—Breakwater repairs.....	1,875	37				
Shag Harbour—Breakwater Wharf—To complete.....	3,083	46				
Sheet Harbour West—Wharf repairs.....	1,491	86				
Shelburne—Wharf repairs and improvements.....	10,455	71				
Ship Harbour East—Wharf repairs.....	2,639	46				
Short Beach—Breakwater extension.....	7,483	41				
Sober Island—Wharf repairs.....	1,490	38				
South Bay, Ingonish—Purchase, reconstruction and extension of Corson's wharf.....	6,103	36				
Carried forward.....	514,248	63			9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	514,248	66			9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
<i>Nova Scotia—Concluded</i>						
Sydney—Wharf.....	16,522	61				
Upper Port Latour—Repairing wharf and constructing sea-wall.....	8,495	37				
Wallace—Wharf repairs.....	1,409	62				
Wedgeport—Wharf repairs.....	4,778	54				
West Advocate—Extension to breakwater-wharf.....	17,498	00				
Westport—Wharf repairs.....	1,768	67				
Windsor—Wharf repairs and improvements.....	1,907	42				
Yarmouth Bar—Breakwater repairs.....	2,909	74				
Yarmouth Harbour—Dredging.....	25,165	20				
			594,703	83		
<i>Prince Edward Island—</i>						
Alberton—Wharf repairs.....	3,204	79				
Charlottetown—Reconstruction of railway wharf.....	38,301	67				
Georgetown—Wharf repairs.....	2,205	59				
Haggarties—Wharf repairs.....	2,646	82				
Harbours and Rivers Generally—Repairs and improvements.....	8,514	66				
Hayden's Wharf—Reconstruction.....	4,092	87				
Hurd's Point—Wharf extension and warehouse.....	7,411	70				
Newport—Wharf repairs.....	3,065	28				
Pownal Bay—Wharf repairs.....	2,166	37				
Souris Harbour—Breakwater repairs.....	53,590	75				
Victoria—Wharf repairs.....	935	43				
West River Bridge—Wharf reconstruction and extension.....	8,223	93				
Westville—Wharf.....	8,444	85				
Wood Islands—Breakwater repairs.....	1,205	58				
			144,010	29		
<i>New Brunswick—</i>						
Anderson's Hollow (Waterside)—Breakwater repairs....	4,997	92				
Beaver Harbour—Wharf reconstruction.....	1,645	21				
Blue Cove—Breakwater.....	1,100	47				
Black's Harbour—Wharf extension.....	4,985	69				
Brantville—Wharf.....	8,836	11				
Buctouche—Wharf repairs.....	2,455	26				
Burnt Church—Wharf repairs.....	5,010	23				
Burton Courthouse—Wharf repairs.....	3,010	71				
Caissie's Cape—Breakwater and pier.....	7,267	20				
Cambridge—Wharf repairs.....	4,034	42				
Campbellton—Dredging.....	13,599	96				
Cape Bald—Breakwater extension and dredging.....	70	04				
Cape Bald—Breakwater repairs.....	5,032	13				
Cocagne Island—Wharf.....	223	92				
Day's Landing (Crystal Beach)—Wharf reconstruction..	3,002	74				
Dipper Harbour—Breakwater repairs.....	4,346	03				
Digdeguash Basin—Wharf.....	4,822	58				
Douglstown—Wharf repairs.....	1,193	67				
Eel River Bridge—Wharf—To complete.....	1,444	54				
Escuminac—Breakwater extension.....	30,715	53				
Grande Anse—Extension to breakwater and pier.....	100	55				
Grande Anse—Breakwater repairs.....	3,509	94				
Harbours and Rivers Generally—Repairs and improvements.....	36,399	44				
Kouchibouguac—Wharf.....	1,502	26				
Lameque—Wharf extension.....	56,747	58				
L'Etéte—Floating slip.....	1,500	29				
Little Aldouane River—Dredging.....	3,983	56				
Maugerville—Wharf repairs.....	5,618	95				
Middle Caraquet—Wharf.....	157	36				
Carried forward.....	217,314	29	738,714	12	9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	217,314	29	738,714	12	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
<i>New Brunswick—Concluded</i>						
North Head—Breakwater repairs.....	4,616	37				
Oromocto—Wharf repairs.....	1,350	27				
Palmer's Wharf—Repairs.....	3,126	19				
Pointe du Chêne—Repairs to wharf and breakwater....	2,259	30				
Pointe Sapin—Breakwater repairs.....	1,511	55				
Richibucto Beach (North)—To rebuild and extend breastworks.....	2,650	41				
Richibucto Beach (South)—Breakwater repairs.....	1,386	54				
Rothesay—Wharf repairs.....	925	04				
St. John River—Improvements.....	2,003	15				
St. Stephen—Wharf repairs.....	4,470	02				
Seal Cove—Breakwater extension.....	1,255	58				
Shippigan Harbour—Dredging.....	3,461	31				
Shippigan Gully—Repairs to breakwaters and breast- works.....	2,498	04				
Stonehaven—Breakwater repairs.....	4,985	69				
Tabusintac—Wharf extension.....	3,022	59				
Tracadie Harbour—Breastworks and breakwaters.....	2,999	69				
White Head—Dredging.....	19,408	41				
White Head (Gull Cove)—Breakwater.....	1,537	60				
Woodward's Cove—Breakwater extension.....	3,598	72				
			284,380	76		
<i>Quebec—</i>						
Amos—Wharf repairs and improvements.....	707	34				
Anse à Beaufils—Repairs to jetties.....	2,499	73				
Anse à Louise—Breastwork training pier.....	1,601	00				
Anse à Louise—Wharf.....	6,209	75				
Anse aux Griffons—Wharf.....	7,186	04				
Anse à Valteau—Extension to training jetty.....	2,624	97				
Anse du Moulin (Aurigny)—Breakwater repairs.....	1,666	35				
Anse St. Jean—Wharf repairs and extension.....	24,979	60				
Bagotville—Wharf repairs and improvements.....	13,061	59				
Baie St. Paul—Repairs and extension to protection walls	15,306	03				
Barachois de Malbaie—Breastwork.....	2,407	45				
Belœil Station—Reconstruction of guard pier.....	1,545	04				
Berthierville—Protection wall.....	4,817	09				
Berthierville—Reconstruction of ice breakers.....	5,683	69				
Bic—Dredging.....	2,497	23				
Bic—Wharf repairs and improvements—To complete....	2,498	07				
Bois Brûlé—Slipway.....	993	88				
Bonaventure—Breakwater-wharf repairs.....	4,004	50				
Bonaventure (Le Fil)—Breakwater repairs and improve- ments.....	1,999	53				
Bradore Bay—Wharf.....	22,009	23				
Bryon Island—Landing slipway.....	999	85				
Cabano—Wharf repairs.....	2,247	38				
Cacouna—Wharf repairs.....	3,401	84				
Cacouna East—Wharf extension.....	2,982	77				
Cannes de Roches—Wharf improvements.....	2,484	11				
Cap aux Os—Wharf and road approach.....	4,499	57				
Cap Chat—Harbour repairs and improvements.....	6,605	74				
Caplin River—Breakwater extension.....	2,999	62				
Cap St. Ignace—Wharf repairs.....	2,596	92				
Charlemagne—Dredging.....	8,095	08				
Colonie des Grèves—Wharf improvements.....	1,798	73				
Contrecoeur—Dredging—To complete payments.....	7,142	88				
Côte Ste. Catherine—Wharf reconstruction.....	3,972	85				
Cross Point—Wharf repairs.....	1,914	80				
D'Aiguillon—Wharf extension.....	2,799	04				
Des Joachims—Wharf reconstruction.....	5,448	09				
Carried forward.....	184,287	38	1,023,094	88	9,346,168	57

DEPARTMENT OF FINANCE

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	184,287	38	1,023,094	88	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
Quebec—Continued						
Dolbeau (Grosse Roche)—Wharf repairs.....	1,800	78				
Donnacona—Harbour improvements, the Donnacona Paper Company to contribute one-third of cost.....	1,312	57				
Doucet's Landing (Ste. Angele de Laval)—Wharf reconstruction.....	37,019	15				
Douglastown—Wharf extension.....	6,213	24				
Dundee—Improvement of drains.....	6,040	85				
Dune du Sud—Slipway.....	857	04				
East Templeton—Wharf repairs.....	1,643	85				
Fabre—Wharf repairs.....	1,693	55				
Father Point—Wharf repairs and improvements.....	6,118	19				
Fauvel—Wharf improvements.....	1,962	01				
Gascons—Wharf repairs.....	2,060	59				
Gascons (Ouest)—Extension to training pier.....	1,979	87				
Gascons (Ouest)—Extension to training pier.....	3,031	23				
Gaspé Basin—Ferry landing.....	13,754	90				
Grande Anse (Gaspé County)—Wharf.....	2,000	89				
Grande Baie (St. Alexis)—Wharf repairs.....	4,814	88				
Grande Entree—Pilework extension.....	5,446	66				
Grand' Mere—Landing.....	2,481	90				
Grandes Piles—Wharf repairs.....	2,475	28				
Grande Riviere (Gaspé County)—Training pier.....	5,001	23				
Grande Vallée—Jetty and breastwork.....	3,812	08				
Grindstone—Wharf repairs.....	17,999	57				
Grondines—Completion of wharf.....	2,599	82				
Grosse Isle—Wharf repairs.....	99,743	56				
Harbours and Rivers Generally—Repairs and improvements.....	3,696	81				
Havre St. Pierre—Wharf repairs.....	3,588	50				
Hudson—Wharf reconstruction.....	1,183	23				
Iberville—Wharf repairs.....	12,546	26				
Ile Perrot—Dredging.....	2,794	16				
Ile Perrot Nord—Wharf repairs.....	3,999	55				
Ile Perrot Sud—Wharf reconstruction.....	2,534	15				
Isle Verte—Wharf repairs.....	1,502	54				
Isle Verte (Riviere des Vases)—Wharf repairs.....	5,850	40				
Kamouraska—Wharf repairs.....	1,499	67				
La Butte—Protection work.....	4,214	36				
Lachine—Wharf repairs.....	1,526	33				
Lac Megantic—Shore protection improvements.....	24,463	42				
Lake St. Louis—Dredging.....	1,795	18				
Lake Tiblemount—Wharf.....	1,898	33				
Lanoraie—Wharf repairs.....	6,994	94				
Laprairie—Repairs to dyke.....	8,818	67				
Les Eboulements—Wharf repairs.....	38,996	20				
Les Escoumains—Wharf reconstruction.....	4,967	20				
L'Hopital (Lapeyriere)—Breakwater-wharf.....	7,147	94				
L'Islet—Wharf repairs.....	5,273	14				
Little Montreal River—Dredging—The Provincial Government to contribute a like amount.....	15,640	77				
Louiseville—Wharf reconstruction.....	1,000	00				
Lower Miguasha—Wharf—To complete.....	5,496	00				
Mal Bay—Wharf repairs.....						
Manicouagan River—Wharf and dredging—One-third of cost to be contributed by Ontario Paper Company, Limited, and Anglo-Canadian Pulp and Paper Company.....	45,768	81				
Marsboro (Victoria Bay)—Wharf repairs.....	872	82				
Marsouins—Wharf.....	5,515	55				
Matane—Harbour improvements.....	32,728	10				
Mechins—Wharf extension and repairs.....	11,423	75				
Miguasha—Wharf repairs.....	1,205	63				
Carried forward.....	681,093	48	1,023,094	88	9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	681,093	48	1,023,094	88	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
Quebec—Continued						
Mille Vaches—Wharf repairs.....	1,964	10				
Moisie—Protection work.....	5,000	00				
Mont Louis—Landing and repairs to protection work.....	3,204	50				
Montmagny—Wharf repairs.....	6,654	58				
Montmagny—Improvements to protection walls.....	174	48				
Natashquan—Wharf repairs and extension.....	28,643	70				
Newport—Wharf replacement.....	10,016	41				
New Richmond—Wharf repairs.....	2,002	55				
Nicolet—Dredging.....	9,092	14				
Norton Creek—Dredging—The Provincial Government to contribute a like amount.....	25,175	13				
Norway Bay—Wharf reconstruction.....	5,557	11				
Papineauville—Wharf repairs.....	3,047	06				
Paspebiac—Wharf extension.....	4,966	28				
Paspebiac East—Breakwater extension.....	1,211	40				
Peel Head Bay—Wharf repairs.....	1,600	00				
Peninsula—Breakwater-wharf.....	3,500	00				
Peribonka—Wharf repairs.....	3,404	98				
Petit Bonaventure—Wharf extension.....	3,699	76				
Petit Cap—Breakwater.....	6,462	21				
Petite Riviere Est—Breakwater.....	18,076	34				
Petite Riviere au Renard—Harbour improvements.....	6,007	65				
Petite Vallee—Wharf extension—To complete payments	1,755	10				
Phillipsburg—Wharf improvements.....	2,000	00				
Pointe au Pic (Murray Bay)—Wharf repairs.....	13,883	87				
Pointe aux Outardes—Wharf.....	5,344	28				
Pointe Claire—Wharf reconstruction, provided munici- pality makes transfer of property.....	5,022	54				
Pointe Fregate—Landing.....	1,512	24				
Portage du Cap, M.I.—Sand pump.....	4,499	95				
Port Daniel—Wharf repairs.....	4,999	96				
Port Daniel West—Breakwater.....	1,057	28				
Port Lewis—Dredging.....	13,983	84				
Richelieu River—Improvements.....	105,172	19				
Rigaud—Wharf repairs.....	1,198	42				
Rimouski—Wharf repairs and improvements.....	10,931	11				
Riviere au Renard—Wharf extension.....	18,523	24				
Riviere au Tonnerre—Wharf.....	23,877	89				
Riviere Blanche (St. Ulric)—Wharf repairs.....	1,718	74				
Riviere des Ilots (Newport)—Repairs to jetty.....	3,811	95				
Riviere des Prairies—Improvements.....	39,893	85				
Riviere du Loup (en bas)—Wharf repairs.....	16,472	09				
Riviere Ouelle—Wharf repairs.....	2,888	63				
Riviere St. Francois—Dredging.....	14,746	49				
River St. John—Protection wall.....	2,296	50				
Roberval—Breakwater reconstruction and extension— To complete.....	2,928	91				
Roberval—Wharf repairs and improvements.....	9,961	34				
Ruisseau le Blanc—Breakwater—To complete payments	2,230	90				
St. Andrews—Wharf reconstruction.....	4,757	22				
Ste. Anne de Bellevue—Wharf improvements.....	984	43				
Ste. Anne du Lac—Protection wall.....	1,369	60				
St. Antoine—Wharf reconstruction.....	5,601	53				
St. Antoine de Tilley—Dredging.....	21,429	39				
St. Charles—Wharf reconstruction.....	4,599	29				
St. Charles de Caplan (Robichaud)—Wharf extension..	3,235	24				
St. Coeur de Marie—Wharf.....	112	91				
St. Eloi (Pointe a la Loupe)—Wharf repairs.....	1,912	23				
St. Etienne de Malbaie—Wharf extension.....	8,482	25				
Ste. Famille—Wharf repairs.....	10,719	01				
St. Felicien—Wharf repairs.....	2,967	11				
Carried forward.....	1,207,435	35	1,023,094	88	9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	1,207,435	35	1,023,094	88	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
<i>Quebec—Concluded</i>						
Ste. Felicite—Wharf repairs.....	1,201	41				
Ste. Flavie—Wharf—To complete.....	107	23				
St. Francois (North)—Improvements to wharf.....	2,234	98				
St. Francois (South) Island of Orleans—Wharf repairs.....	3,518	75				
St. Georges de Malbaie (Chien Blanc)—Breakwater extension.....	1,980	67				
St. Godfroy—Wharf repairs.....	1,857	89				
St. Gregoire de Montmorency—Reconstruction of revetment wall.....	7,316	14				
St. Ignace de Loyola—Wharf repairs.....	1,712	70				
St. Irene—Wharf reconstruction.....	35,558	30				
St. Irene—Wharf repairs.....	65	00				
St. Jean Port Joli—Wharf repairs.....	1,308	44				
St. Juste du Lac—Wharf extension.....	2,230	33				
St. Laurent—Wharf repairs.....	10,065	10				
St. Liguori—Repairs to icebreaker.....	2,905	00				
Ste. Luce—Wharf repairs.....	1,479	56				
St. Marc—Wharf reconstruction.....	4,813	17				
St. Michel de Bellechasse—Wharf repairs.....	4,500	48				
St. Ours—Wharf improvements.....	1,213	08				
St. Paul Ile aux Noix—Wharf improvements.....	5,964	78				
Ste. Petronille—Wharf repairs and improvements.....	505	49				
St. Placide—Wharf reconstruction.....	7,488	10				
St. Roch des Aulnaies—Wharf repairs.....	2,089	49				
St. Simon—To complete wharf.....	4,508	46				
St. Sulpice—Icebreakers.....	4,075	23				
St. Zotique—Ice piers.....	2,567	37				
Sacre Coeur—To complete wharf.....	3,495	50				
Shelter Bay—Dredging.....	10,017	05				
Sorel—Wharf improvements.....	6,413	88				
Stratford Centre—Wharf repairs.....	2,400	95				
Tadoussac (Anse Tadoussac)—Wharf repairs.....	6,631	84				
Thurso—Wharf reconstruction—To complete.....	12,998	82				
Trois Pistoles—Repairs to wharfs.....	3,206	26				
Valleyfield—Dredging.....	50,010	37				
Valleyfield—Improvements to roadway approach.....	1,927	47				
Varennes—Icebreakers, protection works and wharf improvements.....	24,412	93				
Vercheres—Breakwater—To complete.....	6,495	10				
Verdun—Wharf reconstruction.....	2,199	40				
Ville Marie—Wharf repairs.....	7,703	30				
Yamachiche River—Dredging.....	19,321	49				
Yamachiche—Landing platform.....	1,698	08				
Yamaska River—Dredging.....	11,778	84				
			1,489,413	78		
<i>Ontario—</i>						
Bayfield—Repairs to piers.....	2,493	42				
Beaverton—Reconstruction of Harbour works.....	1,687	72				
Brockville—Wharf repairs.....	8,704	79				
Burlington Channel—Improvements.....	227,651	08				
Burlington Channel Bridge—Purchase and installation of power equipment.....	9,547	64				
Burlington Channel Bridge—Repairs to machinery for closing.....	3,378	05				
Byng Inlet—Dredging.....	30,476	44				
Chatham—Repairs to revetment walls.....	1,673	84				
Cobourg—Harbour improvements.....	33,154	46				
Collingwood—Dredging.....	87,467	61				
Goderich—Harbour improvements.....	195,178	64				
Grand Bend—Repairs to piers.....	10,389	50				
Carried forward.....	611,803	19	2,512,508	66	9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	611,803	19	2,512,508	66	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
<i>Ontario</i> —Concluded						
Gravenhurst—Harbour improvements.....	3,983	49				
Harbours and Rivers Generally—Repairs and improvements.....	51,268	46				
Hamilton—Harbour improvements.....	114,463	28				
Honey Harbour—Wharf improvements.....	2,502	44				
Kincardine—Harbour repairs and improvements.....	24,469	62				
Kingston—Dredging Cataraqui Bay.....	35,985	58				
Kingston—Dredging.....	11,584	30				
Kingston, R.M.C.—Repairs and improvements.....	2,233	04				
Kingston—Extension to dry dock.....	42,814	03				
Kingsville—Repairs to piers.....	10,960	44				
Leamington—Wharf repairs.....	7,039	08				
Lion's Head—Dredging—To complete payments.....	2,588	04				
Lion's Head—Wharf repairs.....	4,199	60				
Little Current—Dredging.....	66,028	27				
L'Orignal—Wharf repairs.....	1,470	40				
Manitowaning—Wharf.....	12,019	22				
Meaford—Reconstruction of revetment wall.....	9,983	18				
Minaki—Wharf repairs.....	3,300	00				
Mitchell's Bay—Dredging.....	8,222	32				
Oakville—Repairs to piers.....	7,671	91				
Oshawa—Harbour improvements.....	16,452	20				
Owen Sound—Harbour repairs and improvements.....	1,020	93				
Parry Sound—Dredging.....	13,265	09				
Pelee Island—Repairs to piers.....	8,849	11				
Penetanguishene—Wharf repairs.....	3,302	80				
Port Arthur—To complete payments for improvements towards which Thunder Bay Paper Company has contributed.....	4,850	05				
Port Bruce—Repairs to piers.....	4,000	68				
Port Burwell—Harbour repairs and improvements.....	200,190	11				
Port Colborne—Repairs to harbour works.....	77,725	64				
Port Dover—Harbour improvements.....	120,207	11				
Port Elgin—Dredging.....	27	75				
Port Hope—Repairs to harbour works.....	28,333	77				
Port Maitland—Breakwater reconstruction.....	78,504	03				
Port Stanley—Harbour repairs and improvements.....	47,849	06				
Providence Bay—Wharf improvements.....	4,999	11				
Rondeau—Harbour repairs and improvements.....	23,817	18				
Sarnia—Dredging.....	69,992	53				
Saugeen River—Repairs to harbour works.....	20,804	39				
Sault Ste. Marie—Harbour improvements.....	38,898	62				
South Lancaster—Wharf repairs.....	2,339	35				
Sydenham River—Dredging.....	301	37				
Taylor's Bay—Wharf.....	2,625	86				
Thorah Island—Wharf reconstruction.....	9,416	73				
Toronto—Dredging.....	7,818	45				
Wheatley—Repairs to pier.....	4,095	09				
Whitby—Reconstruction of entrance pier.....	22,727	38				
Windsor—Wharf repairs and improvements.....	10,047	39				
			1,857,051	67		
<i>Manitoba</i> —						
Assiniboine River—Repairs to and extension of dykes...	4,968	51				
Gull Harbour—Wharf repairs.....	1,478	18				
Harbours and Rivers Generally—Repairs and improvements.....	4,768	08				
Killarney—Reconstruction of dam and fishway.....	812	31				
Pelican Lake—Settlement of damages for flooding property.....	5,000	00				
Riverton—Wharf extension.....	3,698	12				
Carried forward.....	20,725	20	4,369,560	33	9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	20,725	20	4,369,560	33	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Continued						
<i>Manitoba—Concluded</i>						
Roseau River—Improvements.....	29,638	96				
St. George—Wharfs.....	2,275	46				
Selkirk—Marine Slip—Repairs.....	9,209	15				
Selkirk—Wharf reconstruction.....	19,571	86				
Winnipeg—Wharf—To complete.....	5,905	70				
			87,326	33		
<i>Alberta and Saskatchewan—</i>						
Athabaska River—Improvements.....	16,967	94				
Cold Lake—Wharf.....	3,088	85				
Craven Dam—In full and final settlement of claims.....	24,350	88				
Faust—Wharf.....	1,461	12				
Fort McMurray—Maintenance and reconstruction of pontoon wharf.....	1,358	17				
Harbours and Rivers Generally—Repairs and improvements.....	3,591	24				
Lumsden—Contribution towards dyking on the Qu'Appelle River—The town of Lumsden to contribute 25 per cent of cost.....	4,500	09				
Waskesiu River and Lake—Improvements to navigation.....	300	00				
			55,618	29		
<i>British Columbia—</i>						
Alice Arm—Wharf repairs.....	1,507	75				
Beaton—Wharf replacement.....	7,449	09				
Bella Coola—Wharf repairs.....	8,135	17				
Buckley Bay—Improvements to ferry slip.....	3,724	00				
Campbell River—Float and breakwater.....	6,817	44				
Comox—Wharf repairs.....	6,697	33				
Canoe—Wharf addition.....	1,093	95				
Columbia River, below Burton—Protection work.....	1,361	59				
Courtenay River—Dredging.....	54,754	33				
Cracroft—Renewal of float approach.....	905	99				
Crawford Bay—Wharf repairs.....	1,589	60				
Crooked, Pack and Parsnip Rivers—Improvements.....	3,426	72				
Deep Cove—Float and approach.....	2,825	77				
Degnen's Bay—Float.....	1,296	40				
Denman Island—Float replacement and improvements to ferry landing.....	1,692	04				
Digby Island—Breakwater.....	2,810	94				
Digby Island—Repairs to float approach.....	4,273	93				
Elkin's Point—Float.....	2,414	29				
Ford's Cove, Hornby Island—Wharf extension and repairs.....	2,772	00				
Fraser Lake—Wharf additions and repairs.....	1,393	19				
Fraser River—North Arm—Dredging.....	67,610	62				
Fraser River—Improvements.....	269,080	15				
Fraser River (Lower)—Operation of snagboat.....	24,719	06				
Gibson's Landing—Wharf repairs.....	1,577	56				
Ginols—Wharf.....	8,773	15				
Glenannon—Wharf.....	6,449	37				
Gower Point—Float.....	1,183	55				
Gray Creek—Wharf replacement.....	5,298	07				
Halcyon—Wharf reconstruction.....	146	55				
Harbours and Rivers Generally—Repairs and improvements.....	64,593	37				
Irvine's Landing, Pender Harbour—Wharf.....	11,999	37				
Johnson's Landing—Wharf replacement.....	4,736	65				
Killiney—Wharf repairs.....	2,290	46				
Kuskanook—Wharf repairs.....	231	62				
Lang Bay—Wharf extension and repairs.....	2,978	96				
Carried forward.....	588,610	03	4,512,504	95	9,346,168	57

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—Continued

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	588,610	03	4,512,504	95	9,346,168	57
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.—Continued						
HARBOURS AND RIVERS—Concluded						
<i>British Columbia—Concluded</i>						
Minstrel Island—Float.....	1,837	11				
Mirror Lake—Wharf reconstruction.....	3,146	64				
Needles—Wharf replacement.....	3,307	77				
New Massett—Wharf repairs.....	1,538	79				
New Westminster—Wharf repairs.....	1,961	19				
Nicomen Island—Protection work and dyking.....	33,857	60				
Okanagan River—Improvements.....	1,474	29				
Okanagan Control Dam—Improvements.....	12,200	72				
Phipps Point—Extension to landing.....	1,732	33				
Port Alberni—Float extensions.....	6,189	67				
Port Essington—Renewal of float.....	3,582	21				
Port Mann—Float.....	1,938	10				
Port Moody—Wharf repairs.....	3,071	58				
Port Renfrew—Wharf repairs.....	2,885	48				
Port Washington—Wharf repairs.....	3,700	00				
Powell River—Breakwater—To complete—The Powell River Company, Limited, having already contrib- uted.....	3,319	10				
Powell River—Wharf repairs.....	4,998	84				
Prince Rupert—Floats.....	9,767	27				
Quatsino—Wharf repairs.....	1,079	24				
Ragged Islands and Grief Point—Improvements.....	10,841	32				
Roberts Creek—Wharf extension.....	5,634	99				
Royston—Wharf repairs.....	7,128	29				
Shoal Bay—Wharf extension.....	1,933	19				
Shusharti Bay—Renewal of float.....	3,600	00				
Sidney—Maintenance of auto ferry landing.....	3,044	99				
Sorrento—Wharf reconstruction.....	5,848	96				
South Pender Island—Wharf repairs.....	3,401	80				
Summerland—Wharf repairs.....	1,386	29				
Stuart Island—Float.....	2,418	90				
Squirrel Cove—Reconstruction of float.....	976	00				
Union Bay—Wharf repairs.....	5,234	43				
Vancouver—First Narrows—Dredging.....	109,010	53				
Vancouver—Slipway at air station.....	4,985	01				
Vancouver—Stanley Park—Foreshore protection.....	7,998	96				
Victoria—Improvements to Ogden Point piers.....	32,471	64				
William Head—Quarantine Station—Repairs to wharfs.....	6,033	82				
				902,167	08	
<i>Yukon—</i>						
Stewart and Yukon Rivers—Improvements.....				5,000	00	
<i>Generally—</i>						
Harbours and Rivers Generally.....				29,985	92	
Total Harbours and Rivers.....						5,449,657 95
DREDGING						
Maritime Provinces.....				644,323	53	
Ontario and Quebec.....				553,430	88	
Manitoba, Saskatchewan and Alberta.....				98,538	99	
British Columbia.....				242,424	00	
						1,538,717 40
Carried forward.....						16,334,543 92

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—*Continued*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					16,334,543	92
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.— <i>Continued</i>						
ROADS AND BRIDGES						
Dominion Roads and Bridges Generally.....			4,831	65		
International Bridge over River St. John between Clair, N.B., and Fort Kent, Maine, the State of Maine to pro- vide \$130,000.....			65,979	31		
Ottawa—Maintenance and repairs to bridges and approaches.....			11,550	36	82,361	32
TELEGRAPH AND TELEPHONE LINES						
<i>Nova Scotia—</i>						
Cape Breton Telegraph and Telephone Lines—General repairs and improvements.....	8,005	69				
Boularderie—Cape Breton Telegraph Line—General repairs, repoling, etc.....	3,380	89				
Telegraph line from Framboise to Sterling.....		714		33		
Telephone circuit between Ottawa Brook and West Alba Telephone line from Port Hawkesbury to Queensville....		714		96		
	2,219	96	15,035	83		
<i>Prince Edward Island—</i>						
Telephone cable between Cape Traverse, P.E.I. and Cape Tormentine, N.B.....				200	00	
<i>Quebec—</i>						
Reconstruction of North Shore, St. Lawrence, Tele- graph System from Murray Bay eastward.....	24,909	82				
Magdalen Islands Telephone Service—General repairs and improvements.....	4,995	43	29,905	25		
<i>Saskatchewan and Alberta—</i>						
Alberta and Saskatchewan Telegraph and Telephone Lines—General repairs and improvements.....	20,415	68				
Island Hill—Île à la Crosse Telegraph Line—Clearing right-of-way.....	11,586	04				
Meadow Lake—Green Lake Telegraph Line—Installation of telephone service.....		215		46		
Peace River—Building for telegraph service.....		3,824		58		
Reconstruction of Grouard—Peace River Telegraph Line. Telegraph line from Peace River to Fort Vermilion....		3,641		64	91,866	04
	52,182	64				
<i>British Columbia—</i>						
Barkerville telegraph office—Improvements and repairs British Columbia, Northern District—General repairs and improvements.....	500	00	11,132	81		
British Columbia, Vancouver Island District—General repairs and improvements.....			11,356	29		
Metallic telegraph circuit between Lillooet and Lytton.....		6,299		98		
Nanaimo—Parksville Telegraph Line—Improvements.. Telephone line from Dawson Creek to Sunset Prairie....		1,498		78		
Telephone line from Rolla to Rolla Landing.....		2,300		48		
Yukon Telegraph System—General repairs and improve- ments.....		1,508		02	18,310	48
Yukon Telegraph System—Repairs to building at White- horse.....		800		00		
Extension of telephone line on Galiano Island.....		1,985		14	55,691	98
					192,699	10
Carried forward.....					16,609,604	34

Appendix No. 11—Continued

PUBLIC WORKS—CHARGEABLE TO INCOME—*Concluded*

	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					16,609,604	34
CONSTRUCTION, MAINTENANCE, REPAIRS, ETC.— <i>Concluded</i>						
MISCELLANEOUS						
Accounts Branch—Salaries of agents, clerks, travelling and contingent expenses of outside service.....			22,039	57		
Architectural Branch—Salaries of architects, clerks of works, inspectors, draftsmen, clerks and messengers of outside service.....			70,540	86		
Engineering Branch—Salaries of engineers, inspectors, super- intendents, draftsmen, clerks and messengers of outside service.....			488,813	26		
For operation and maintenance of inspection boats.....			17,396	65		
Maintenance and operation of water storage dams on Ottawa River and tributaries, surveys and settlement of land damages.....			35,040	36		
National Gallery of Canada.....			129,985	98		
National Monument on Connaught Place.....			31,500	00		
River gauging and metering.....			16,553	62		
Surveys and inspections.....			120,041	35		
Compassionate allowance to Alphonsine Thibault, widow of the late Paul Thibault.....			3,355	00		
To provide for certain medical and hospital accounts of employees injured in the Province of Quebec.....			566	75	935,833	40
SUBSIDIES TO DRY DOCKS (Under Statute)						
Burrard Dry Dock (North Vancouver, B.C.).....			112,500	00		
Collingwood Dry Dock, No. 2.....			9,208	96		
Montreal Floating Dock.....			105,000	00		
Port Arthur Dry Dock.....			37,741	50		
Prince Rupert Floating Dock.....			76,970	88		
St. John Dry Dock.....			247,500	00	588,921	34
Total Public Works Chargeable to Income.....					18,134,359	08

DEPARTMENT OF FINANCE

Appendix No. 11—Concluded

PUBLIC WORKS—CHARGEABLE TO COLLECTION OF REVENUE

	\$	cts.	\$	cts.	\$	cts.
<i>Sundry Works—</i>						
Collection of Public Works Revenue.....	2,200	73				
Graving Docks.....	176,924	96				
Harbours and Rivers.....	51,812	20				
			230,937	89		
<i>Telegraph and Telephone Lines—</i>						
Alberta and Saskatchewan.....	112,229	77				
British Columbia—Mainland.....	25,344	90				
British Columbia—Northern District.....	68,865	4				
British Columbia—Vancouver Island District.....	130,357	50				
Lower St. Lawrence and Maritime Provinces.....	216,768	72				
Prince Edward Island and the Mainland.....	6,946	66				
Telegraph and Telephone Service—Generally.....	5,006	07				
Yukon System Main Line (Ashcroft-Dawson).....	127,652	97				
			693,172	04		
					924,109	93

Appendix No. 12

DETAILS of Expenditure of the Department of National Defence on account of
Adjustment of War Claims, Militia Services, for the fiscal year ended
March 31, 1930

	\$	cts.	\$	cts.
Separation Allowances.....	3,691	00		
War Service Gratuities.....	12,981	39		
Pay and Allowances.....	3,168	60		
Historical Section.....	22,345	46		
Ordnance Services.....	12,330	88		
Transport and Travelling.....	683	40		
Civilian Employees.....	2,190	00		
Estates of Deceased Soldiers.....	800	72		
Medals and Memorial Crosses.....	459	69		
Legal Expenses.....	196	00		
Postage.....	1,103	87		
Printing and Stationery.....	3,001	03		
Canadian War Graves.....	25,032	44		
Miscellaneous.....	622	23		
			88,606	71

INTEREST ON INVESTMENTS

[illegible]

Appendix No. 13—Continued

INTEREST ON INVESTMENTS—Continued

From what source received and nature of investment	Time	To what date paid	Rate of In- terest	Amount Invested	Interest Realized	Total
			p.c.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....						4,152,877 66
LOANS TO PROVINCES						
British Columbia.....	1 year..	Dec. 31, 1929	5	1,701,500 00		85,075 00
Manitoba.....	118 days	April 8, 1929	5	50,000 00	876 71	
	1 year..	Feb. 15, 1930	5	395,000 00	19,750 00	
	1 year..	Dec. 1, 1929	5	1,155,000 00	57,750 00	78,376 71
New Brunswick.....	$\frac{1}{2}$ year..	April 16, 1929	5	620,000 00	11,550 00	
	$\frac{1}{2}$ year..	Oct. 16, 1929	5	448,000 00	11,200 00	
	1 year..	Dec. 28, 1929	5	268,000 00	13,400 00	
	$\frac{1}{2}$ year..	July 22, 1929	5	468,000 00	11,700 00	
	$\frac{1}{2}$ year..	Jan. 22, 1930	5	445,000 00	11,125 00	58,975 00
Nova Scotia.....	1 year..	Nov. 20, 1929	5	200,000 00	10,000 00	
	1 year..	Mar. 15, 1930	5	500,000 00	25,000 00	
	1 year..	Feb. 19, 1930	5	200,000 00	10,000 00	
	1 year..	Aug. 28, 1929	5	260,000 00	6,500 00	
	1 year..	Feb. 28, 1930	5	165,000 00	4,125 00	
	Various.	Various.....	5	85,000 00	1,082 54	
	1 year..	April 6, 1930	5	37,000 00	1,850 00	58,557 54
Prince Edward Island.....	1 year..	Dec. 17, 1929	5	50,000 00		2,500 00
Quebec.....	1 year..	Dec. 31, 1929	5	5,796,702 72		328,551 34
FOREIGN GOVERNMENTS						
Greek Government Loan.....	$\frac{1}{2}$ year..	June 30, 1929	5	7,080,000 00	177,000 00	
	$\frac{1}{2}$ year..	Dec. 31, 1929	5	6,975,000 00	174,375 00	351,375 00
Roumanian Government Loan	1 year..	April 1, 1930	4	23,969,720 00		958,780 00
HARBOUR COMMISSIONS						
Chicoutimi Harbour Debentures.....	$\frac{1}{2}$ year..	July 1, 1929	5	400,000 00	10,000 00	
	93 days.	July 1, 1929	5	100,000 00	1,273 97	
	$\frac{1}{2}$ year..	Jan. 1, 1930	5	500,000 00	12,500 00	
	Various.	Jan. 1, 1930	5	500,000 00	2,089 03	25,863 00
Halifax Harbour Debentures.	Various.	July 1, 1929	5	136,000 00	1,213 15	
	$\frac{1}{2}$ year..	Jan. 1, 1930	5	136,000 00	3,400 00	
	Various.	Jan. 1, 1930	5	299,000 00	3,979 17	8,592 32
Montreal Harbour Debentures.....	1 year..	Jan. 1, 1930	3	8,250,000 00	247,500 00	
	1 year..	Jan. 1, 1930	3 $\frac{1}{2}$	17,235,000 00	603,225 00	
	$\frac{1}{2}$ year..	July 1, 1929	5	24,865,000 00	621,625 00	
	Various.	July 1, 1929	5	1,500,000 00	13,356 16	
	$\frac{1}{2}$ year..	Jan. 1, 1930	5	26,365,000 00	659,125 00	
	Various.	Jan. 1, 1930	5	981,000 00	12,942 32	2,157,773 48
St. John Harbour Debentures.	$\frac{1}{2}$ year..	July 1, 1929	5	389,000 00	9,725 00	
	Various.	July 1, 1929	5	446,000 00	5,072 20	
	$\frac{1}{2}$ year..	Jan. 1, 1930	5	835,000 00	20,875 00	
	Various.	Jan. 1, 1930	5	1,046,000 00	13,152 33	48,824 53
Vancouver Harbour Debentures.....	$\frac{1}{2}$ year..	July 1, 1929	5	17,317,900 00	432,947 50	
	93 days.	July 1, 1929	5	143,000 00	1,821 78	
	$\frac{1}{2}$ year..	Jan. 1, 1930	5	17,460,900 00	436,522 50	
	Various.	Jan. 1, 1930	5	345,000 00	6,306 70	877,598 48
Carried forward.....						9,193,720 06

Appendix No. 13—Concluded

INTEREST ON INVESTMENTS—*Concluded*

From what source received and nature of investment	Time	To what date paid	Rate of In- terest	Amount Invested	Interest Realized	Total
			p. c.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....						9,193,720 06
SEED GRAIN AND RELIEF						
Seed Grain and Relief Ad- vances.....						139,181 56
SOLDIER AND GENERAL LAND SETTLEMENT						
Soldier Land Settlement Loans.....	Various.	Various.....	5		1,620,317 78	
General Land Settlement Loans.....	Various.	Various.....	5		118,834 27	1,739,152 05
MISCELLANEOUS						
Interest on Current Accounts with the—						
Bank of Montreal, London..	Various.	Dec. 31, 1929.....			89,623 58	
Bank of Montreal, New York.....	Various.	Jan. 31, 1930.....			45,556 70	
Other Current Accounts.....					960,352 95	
Interest on Special Funds—						
Bank of Montreal, Montreal					5,361 78	
Canadian Government Mer- chant Marine—						
Interest on ships sold.....	Various.				2,570 15	
Montreal Turnpike Trust Cor- poration—						
Interest under Commuta- tion Agreements.....	Various.	Various.....	6		8,854 64	
Province of Quebec Debt Account.....	1 year..	Jan. 1, 1930	4	1,473,609 63	58,944 38	
St. John Bridge and Railway Extension Company.....	1 year..	July 1, 1929	4	433,900 00	17,356 00	
Canadian National Railways- Temporary Loans.....	Various.				1,257,530 77	2,446,150 95
						13,518,204 62

Appendix No. 14

STATEMENT of Casual Revenue paid to the Receiver General for the fiscal year ended March 31, 1930

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
<i>Agriculture—</i>						
Car inspection.....			87,970	40		
Cleaning grain.....			104	33		
Conscience money.....			5	00		
Court fees.....			20	00		
Fumigating charges.....			4,581	10		
Inspection fees and health certificates.....			29,452	68		
Race track supervision.....		23,942	76			
Less payments.....		19,264	50			
				4,678	26	
Refunds of previous years' expenditure.....				23,274	92	
Sale of Produce—Experimental farms.....				183,109	35	
Sale of publications.....				171	56	
Sale of sundries.....				2,822	46	
Seed testing charges.....				8,944	41	
Sundry fees.....				62,472	13	
						407,606 60
<i>Archives—</i>						
Photostat copies.....				36	90	
Refunds for empties returned.....				6	50	
Sale of publications.....				5	00	
						48 40
<i>Civil Service Commission—</i>						
Examination fees.....				19,861	50	
Less—Refunds of fees.....				7,520	00	
						12,341 50
<i>External Affairs—</i>						
Passport fees.....		155,115	69			
Less—Refunds of fees.....		1,524	55			
				153,591	14	
Refunds of previous years' expenditure.....				5,491	62	
Visa fees.....				488	25	
						159,571 01
<i>Finance—</i>						
Bank inspection.....		19,071	87			
Conscience money.....		1,018	50			
Interest on excess circulation.....		27,333	77			
Registration and insurance fees.....		8,113	42			
Registration fees—Bank Act.....		2,738	00			
Refunds of previous years' expenditure.....		11,670	58			
Sale of publications.....		0	50			
Sale of pulp—Currency Branch.....		951	30			
Sterling Exchange refunds.....		144	00			
Unclaimed money.....		289	53			
				71,331	47	
<i>Royal Mint—</i>						
Charges for refining gold.....		26,391	54			
Charges for gold bars sold.....		682	55			
Charges for gold proof plate sold.....		53	30			
Charges for making assays.....		76	00			
Charges for striking medals.....		19	00			
Charges for refining silver war badges.....		107	24			
Difference in value of gold shipped to New York.....		23	79			
Gain on exchange.....		0	20			
Profits on nickel coinage.....		208,976	79			
Profits on copper coinage.....		103,849	45			
Profits on silver coinage.....		73,362	08			
Profits on gold coinage.....		24,681	06			
Sale of palladium.....		2,952	56			
				441,175	56	
						512,507 03
Carried forward.....						1,092,074 54

Appendix No. 14—Continued

STATEMENT of Casual Revenue paid to the Receiver General for the fiscal year ended March 31, 1930—*Continued*

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					1,092,074	54
<i>Fisheries—</i>						
Credit balance standing in name of the Receiver General—Particulars unknown.....				23	16	
Fish culture.....				416	45	
For services rendered.....				12	00	
List of names furnished.....				82	21	
Modus vivendi.....				191	00	
Pelagic sealing.....				62,507	32	
Refund for empty barrels, sacks, etc.....				779	50	
Refunds of previous years' expenditure.....				5,817	29	
Sale of sundries.....				3,411	48	
				73,240	41	
Less—Refund of rental of hatchery.....				146	79	
						73,093 62
<i>House of Commons—</i>						
Private Bills.....				15,274	11	
Refunds of previous years' expenditure.....				102	00	
						15,376 11
<i>Immigration and Colonization—</i>						
Bank interest.....				99	30	
Commission on telephones.....				1	92	
Letters of identification fees.....				1,050	00	
Refunds of previous years' expenditure.....				9,555	59	
Rentals.....				185	00	
Sale of sundries.....				697	77	
Unclaimed cheque.....				1	00	
						11,590 58
<i>Indian Affairs—</i>						
Bank interest.....				329	05	
Collections—Repayment of loans.....				1,602	56	
Conscience money.....				5	00	
Refund from Trust Fund.....				353	67	
Refunds of previous years' expenditure.....				7,700	85	
Sale of sundries.....				471	45	
Subsidy granted by the Province of Quebec for construction of a bridge at Maniwaki Reserve.....				1,362	50	
						11,825 08
<i>Interior—</i>						
Refunds of previous years' expenditure.....				14,577	31	
Registration fees, Northwest Territories.....				26	50	
Registration fees, Yukon Territory.....				549	00	
Sale of sundries.....				711	00	
Unclaimed estates, Northwest Territories.....				0	60	
Unclaimed estates, Yukon Territory.....				408	06	
						16,272 47
<i>Justice—</i>						
Advertising in Canada Law Reports.....				1,167	00	
Refunds of previous years' expenditure.....				8,722	11	
Revenue from Penitentiaries Branch.....				5,598	90	
Sale of Canada Law Reports.....				11,134	00	
Sale of sundries.....				50	00	
Sheriff fees—Dawson.....				32	25	
				26,704	26	
Less—Adjustment of judges' salaries.....				0	60	
						26,703 66
<i>Labour—</i>						
Refunds of previous years' expenditure.....				16	66	
Sale of publications.....				72	35	
Subscriptions to Labour Gazette.....				1,284	92	
						1,373 93
Carried forward.....						1,248,309 99

Appendix No. 14—Continued

STATEMENT of Casual Revenue paid to the Receiver General for the fiscal year ended March 31, 1930—*Continued*

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					1,248,309	99
<i>Marine—</i>						
Annual boat repayments.....			5,700	00		
Conscience money.....			15	25		
Dominion Steamers.....			375	71		
Examination of Masters and Mates.....			5,125	75		
For services rendered.....			1,709	94		
Marine register.....			58	60		
Overhead charges of services and stores.....			69	94		
Pilots' licence fees.....			707	00		
Radio revenue.....			90,727	91		
Refunds of previous years' expenditure.....			70,269	10		
Rentals.....			16,628	00		
Repayment on loan of \$2,000.....			500	00		
Sale of publications.....			3,520	73		
Sale of sundries.....			5,791	90		
Signal station dues.....			1,302	00		
Use of equipment.....			655	00		
Wireless apparatus licence fees and wireless operators' examination fees.....			408,183	40	611,340	23
<i>Mines—</i>						
Explosives permits.....			609	00		
Gain on sale of bullion to Royal Mint.....			652	46		
Refunds of previous years' expenditure.....			521	19		
Sale of publications.....			2,087	89		
Sale of sundries.....			7,433	57	11,304	11
<i>National Defence—</i>						
Advertising in books and maps.....		762	31			
Bank interest.....		797	73			
Barrack damages.....		200	95			
Commission on telephones.....		12	15			
Labour.....		2	40			
Purchase of discharges.....	10,567	54				
Printing of maps.....	114	15				
Privileges granted.....	449	25				
Refunds of previous years' expenditure.....	44,783	20				
Refund of unused revenue stamps.....	105	14				
Rent of stores and equipment.....	7,783	63				
Rents.....	17,676	56				
Sale of Government property.....	8,633	00				
Sale of movables.....	35,571	75				
Sale of sundries.....	96	00				
Wireless stations.....	45,850	69			173,406	45
<i>Air Services—</i>						
Air harbour licences.....		380	00			
Air transportation.....		1,438	00			
Air worthiness and stress analysis.....		1,245	00			
Ground fees and hangar space rentals.....		5,769	50			
Labour and tractor services.....		268	70			
Landing fees and storage charges.....		5,295	10			
Locker fees.....		22	51			
Passenger fees.....		275	70			
Private pilots' licence fees.....		628	00			
Registration fees.....		1,395	00			
		16,717	51			
Less—Taxes on Air Port.....		4	13			
				16,713	38	
					190,119	83
Carried forward.....					2,061,074	16

Appendix No. 14—Continued

STATEMENT of Casual Revenue paid to the Receiver General for the fiscal year ended March 31, 1930—Continued

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					2,061,074	16
<i>National Revenue—</i>						
Bank interest.....		24	29			
Bonded factory and warehouse fees.....	71,905	87				
Brokers' licences.....	2,450	00				
Cartage.....	49,846	61				
Certified copies, manifests, etc.....	1,383	35				
Commissions on telephones.....		4	93			
Conscience money.....		345	02			
Court costs.....	9,138	18				
Extra services.....	175,465	41				
Excess cash on hand.....		266	79			
Labels.....	62,656	99				
Landing certificates.....		135	10			
Law stamps.....	9,548	45				
Outstanding cheques.....	171	83				
Overpayment recovered.....	275	00				
Radio tolls.....		16	30			
Refunds of previous years' expenditure.....	7,768	71				
Rents.....		18	50			
Replaced stamps.....		140	33			
Sale of sundries.....	2,226	25				
Sale of unclaimed goods.....	1,943	32				
Stemmers licences.....		2	00			
Storage charges.....	46,147	94				
Tobacco stamping.....		109	62			
Tourist deposit unclaimed.....		6	72			
Witness fees.....		3	00			
				442,000	51	
<i>Less—</i> Payment of an unaccepted refund of Excise Taxes.....	315	09				
Security for payment of Excise Taxes.....	50	00				
				365	09	
				441,635	42	
<i>Taxation Branch—</i>						
Fees.....		35	75			
Law costs.....	8,523	86				
Refunds of previous years' expenditure.....		15	00			
Sale of waste paper.....		35	69			
Unclaimed refunds of income tax.....	361	99				
				8,972	29	
						450,607 71
<i>Patent and Copyright Office—</i>						
Taxed costs <i>re</i> Exchequer Court case.....						1,594 46
<i>Pensions and National Health—</i>						
Refunds of previous years' expenditure.....				117,922	70	
<i>Health—</i>						
Fees—Food and drugs, analysis and licence.....	6,400	00				
Fees—Opium and narcotic drug, licence.....	2,958	70				
Fees—Patent medicines, registration and licence.....	6,716	00				
Fumigation of ships.....	15,070	54				
Hospital care of passengers.....	24,103	50				
Refunds of previous years' expenditure.....		368	49			
Sale of sundries.....		7	11			
Services of launch.....	1,800	00				
				57,424	34	
<i>Pensions Commission—</i>						
Refunds of previous years' expenditure.....				31,154	59	
						206,501 63
<i>Post Office—</i>						
Refunds of previous years' expenditure.....						2,116 59
Carried forward.....						2,721,894 55

DEPARTMENT OF FINANCE

Appendix No. 14—Concluded

STATEMENT of Casual Revenue paid to the Receiver General for the fiscal year ended March 31, 1930—*Concluded*

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					2,721,894	55
<i>Printing and Stationery—</i>						
Sale of publications.....			55,852	93		
Sale of waste paper.....			17,836	52		
Surplus in Printing Branch account.....			13,072	88		
Surplus in Stationery Office account.....			32,666	54	119,428	87
<i>Public Works—</i>						
Blue prints and photographic work.....			9,268	10		
Commission on telephones.....			3,987	83		
Conscience money.....			26	75		
Earnings of dredges and plant.....			24,802	81		
Fees.....			10	80		
For use of Government property.....			25	00		
Permits.....			696	06		
Refunds of previous years' expenditure.....			17,610	35		
Rents.....			90,026	61		
Sale of movables.....			23,501	53		
Sale of real estate.....			85,120	00		
Water collections.....			247	43	255,323	27
<i>Railways and Canals—</i>						
Commission on telephones.....			17	09		
Conscience money.....			3	65		
Electrical energy supplied.....			1,890	00		
Interest earned.....			384	94		
Interest on railway subsidies.....			157,404	77		
Labour and material supplied.....			71,574	40		
Refund for empties returned.....			415	45		
Refund for damage done.....			403	65		
Refunds of previous years' expenditure.....			4,646	41		
Rent of equipment.....			733	48		
Sale of publications.....			517	08		
Sale of sundries.....			3,914	52		
Unclaimed security deposits.....			2	89	241,908	33
<i>Royal Canadian Mounted Police—</i>						
Policing Saskatchewan.....			175,000	00		
Refunds of previous years' expenditure.....			27,264	39	202,264	39
<i>Secretary of State—</i>						
Fees.....			668,157	21		
Refunds of previous years' expenditure.....			0	97	668,158	18
<i>Senate—</i>						
Certified copies.....			871	80		
Private bills.....			34,932	37		
Refunds of previous years' expenditure.....			9	00	35,813	17
<i>Soldier Settlement Board—</i>						
Refunds of previous years' expenditure.....			611	06		
Sale of sundries.....			324	00	935	06
<i>Trade and Commerce—</i>						
Bank interest.....			117	53		
Commercial intelligence service.....			1,582	84		
Gas licence fees.....			50	00		
Refunds of previous years' expenditure.....			10,693	37		
Rentals.....			18,382	91		
Revenue from Motion Picture Bureau.....			23,416	18		
Sale of publications.....			25	01		
Sale of sundries.....			703	66		
Subscriptions.....			12	50	54,984	00
					4,300,709	82

Appendix No. 15

STATEMENT of Fines and Forfeitures, including Seizures, for the fiscal year ended March 31, 1930

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
<i>Agriculture—</i>						
Animal Contagious Diseases Act.....			1,061	35		
Dairy Industry Act.....			5,625	00		
Fruit Act.....			335	00		
Live Stock Act.....			9,779	10		
Meat and Canned Foods Act.....			30	00		
Seed Act.....			20	00		
					16,850	45
<i>Civil Service Commission—</i>						
Impersonation at examination.....					20	00
<i>Finance—</i>						
Bank Act.....			1,010	00		
Contractors' security forfeited.....			345	80		
					1,355	80
<i>Fisheries—</i>						
Customs and Fisheries Protection Act.....			224	74		
Fisheries Acts.....			13,342	00		
Fisheries Inspection Acts.....			5	00		
International Halibut Treaty.....			175	87		
					13,747	61
<i>House of Commons—</i>						
Candidates' election deposits forfeited.....					600	00
<i>Immigration and Colonization—</i>						
Chinese Immigration Acts.....			15,010	00		
Immigration Acts.....			34,535	20		
					49,545	20
<i>Interior—</i>						
Forestry Acts.....			37	00		
Migratory Birds Acts.....			620	25		
Northwest Territories Act.....			200	00		
Northwest Territories Game Act.....			60	00		
Parks regulations.....			2,827	19		
					3,744	44
<i>Justice—</i>						
Clerk of Territorial Court, Dawson.....			30	00		
Police Magistrate, Dawson.....			235	00		
Police Magistrate, Durham, Ont.....			5	00		
Tobacco Restraint Act.....			10	00		
					280	00
<i>Marine—</i>						
Marine Acts.....					5,228	15
<i>Mines—</i>						
Explosives Act.....					87	50
<i>National Defence—</i>						
<i>Militia—</i>						
Militia Acts.....			475	00		
<i>Air Services—</i>						
Air Regulations.....	220	00				
Theft of trees on Vimy land.....	36	18				
			256	18		
					731	18
Carried forward.....					92,190	33

Appendix No. 15—Concluded

STATEMENT of Fines and Forfeitures, including Seizures, for the fiscal year ended March 31, 1930—*Concluded*

From Whom Received and Nature of Receipts	\$	cts.	\$	cts.	\$	cts.
Brought forward.....					92,190	33
<i>National Revenue—</i>						
Customs seizures.....	595,842	93				
Less refunds.....	298,179	11				
			297,663	82		
Excise seizures.....	164,201	75				
Less refunds.....	162,337	51				
			1,864	24		
Forfeited bonds.....			5,236	18		
Seizures generally.....			1,046	20		
Tobacco Restraint Act.....			1	00		
Penalty under Customs Act.....			26	94		
War Tax Act—Excise Taxes.....			327,085	30		
			632,923	68		
<i>Taxation Branch—</i>						
Income Tax Act.....			6,143	01	639,066	69
<i>Pensions and National Health—</i>						
<i>Health—</i>						
Food and Drugs, penalties.....			3,382	30		
Opium and Narcotic Drugs, penalties.....			11,644	83		
Opium and Narcotic Drugs, seizures.....			1,187	24		
Patent Medicine Act—penalties.....			65	00	16,279	37
<i>Post Office—</i>						
Post Office Acts.....					542	00
<i>Railways and Canals—</i>						
Deposit forfeited.....			20	00		
Railway Acts.....			24	25	44	25
<i>Trade and Commerce—</i>						
Canada Grain Act.....			35	00		
Gas Act.....			25	00		
Precious Metals Marking Act.....			50	00		
Weights and Measures Act.....			110	00	220	00
					748,342	64

Appendix No. 16

PREMIUM, DISCOUNT AND EXCHANGE—REVENUE

From What Source Received	Rate	Amount	Amount of Revenue	Total
			\$ cts.	\$ cts.
Premium, etc., on sundry items—				
Finance.....				1 30
Immigration and Colonization.....				9 76
International Joint Commission.....				11 08
National Defence.....				1 70
National Defence—Air Service.....				1 42
National Defence—Naval Service.....				0 11
National Revenue.....				148 43
National Revenue—Income Tax Branch.....				41 87
Patent and Copyright Office.....				9 05
Pensions and National Health.....				0 02
Public Works.....				49 43
Railways and Canals.....				5 85
Trade and Commerce.....				0 04
		£ s. d.		
Discount on Sterling Exchange purchased.....	4·85 ³ / ₈	850,000 0 0	10,979 16	
	4·85 ⁵ / ₈	500,000 0 0	3,958 33	14,937 49
Discount on Stock purchased for Sinking Funds....	71	158 16 0	772 83	
	71 ³ / ₄	226 0 0	1,099 87	
	72 ¹ / ₂	244 15 0	1,191 12	
	73 ³ / ₈	124 5 0	604 68	
	79 ³ / ₄	17,936 19 5	87,293 26	
	79 ⁷ / ₈	180 17 1	880 16	
	79 ¹ / ₂	7,066 10 11	34,390 52	
	80	17,556 0 0	85,439 20	
	80 ¹ / ₈	1,351 10 0	6,577 30	
	80 ³ / ₈	1,251 5 0	6,089 42	
	80 ⁷ / ₈	1,434 7 6	6,980 63	
	81 ¹ / ₂	551 5 0	2,682 75	
	81 ⁷ / ₈	483 6 8	2,352 22	
	82	504 0 0	2,452 80	
	82 ¹ / ₈	134 1 3	652 44	
	82 ³ / ₈	1,424 15 0	6,933 79	
	82 ⁵ / ₈	2,156 5 0	10,493 75	
	82 ⁷ / ₈	342 10 0	1,666 83	
	83	1,241 0 0	6,039 54	
	83 ¹ / ₈	8,187 10 0	39,845 83	
	83 ³ / ₈	382 7 6	1,860 89	
	85 ¹ / ₄	59 0 0	287 13	
	85 ³ / ₄	8,118 0 2	39,507 65	
	85 ⁵ / ₄	1,178 15 0	5,736 58	
	86	12,110 0 0	58,935 33	
	86 ¹ / ₈	69 7 6	337 63	
	86 ¹ / ₄	130 16 4	636 64	
	86 ³ / ₄	212 0 0	1,031 73	
	87	325 0 0	1,581 67	
	87 ¹ / ₈	107 5 10	522 15	
	87 ⁷ / ₈	291 0 0	1,416 20	
	88	3,600 0 0	17,520 00	
	88 ³ / ₈	130 12 6	635 71	
	88 ⁵ / ₈	1,804 5 1	8,780 70	
	88 ⁷ / ₈	1,511 5 0	7,354 75	
	89	1,682 3 5	8,186 56	
	92 ¹ / ₄	480 0 0	2,336 00	
	92 ³ / ₄	72 10 0	352 83	
	92 ⁵ / ₄	249 7 6	1,213 62	
	93 ¹ / ₄	9,625 10 0	46,844 10	
Carried forward.....			509,516 81	15,217 55

Appendix No. 16—Concluded

PREMIUM, DISCOUNT AND EXCHANGE—REVENUE—*Concluded*

From What Source Received	Rate	Amount	Amount of Revenue	Total
			\$ cts.	\$ cts.
Brought forward.....			509,516 81	15,217 55
Discount on Stock purchased for Sinking Funds— Concluded	93 $\frac{3}{4}$	816 17 4	3,975 41	
	94 $\frac{3}{4}$	84 7 6	410 63	
	94 $\frac{1}{2}$	18 7 6	89 43	
	94 $\frac{1}{4}$	102 10 0	498 83	
	95	185 0 0	900 33	
	95 $\frac{1}{2}$	47 10 0	231 17	
	95 $\frac{3}{4}$	108 0 0	525 60	
				516,148 21
				531,365 76

Appendix No. 17

SUPERANNUATION REVENUE

	Superannua- tion Fund No. 1	Superannua- tion Fund No. 2
	\$ cts.	\$ cts.
Agriculture.....	21 00	
Finance.....		50 40
House of Commons.....		98 00
National Revenue.....		163 67
Patent and Copyright Office.....		48 27
Post Office.....		286 36
Interest allowed on Fund No. 2.....		116,664 21
	21 00	117,310 91
Deduct—Refund, Superannuation Fund No. 1.....	15 61	
Payments to superannuated employees, Fund No. 2.....		43,257 43
	5 39	74,053 48

Appendix No. 18

STATEMENT of Superannuation Fund No. 5 for the year ended March 31, 1930

Department	Total Contri- butions	Less Refunds	Net Contri- butions
	\$ cts.	\$ cts.	\$ cts.
Agriculture.....	127,808 97	85 68	127,723 29
Archives.....	7,855 88		7,855 88
Auditor General's Office.....	16,329 79		16,329 79
Civil Service Commission.....	8,577 01	11 75	8,565 26
External Affairs.....	9,151 37		9,151 37
Finance.....	19,856 30	3 55	19,852 75
Fisheries.....	22,960 59	159 66	22,800 93
House of Commons.....	11,244 09		11,244 09
Immigration and Colonization.....	67,739 86	56 37	67,683 49
Indian Affairs.....	37,266 78	69 53	37,197 25
Insurance.....	4,834 90		4,834 90
Interior.....	214,138 22	932 07	213,205 55
Justice.....	31,500 95	5 13	31,495 82
Labour.....	11,678 27	5 46	11,672 81
Library of Parliament.....	1,622 51		1,622 51
Marine.....	117,510 00	347 47	117,162 53
Mines.....	32,581 16		32,581 16
National Defence.....	65,434 78	139 94	65,294 84
National Revenue—			
Customs and Excise.....	348,862 51	161 45	348,701 06
Income Tax.....	85,142 25	10 85	85,131 40
Office of the Secretary to the Governor General.....	997 45		997 45
Pensions and National Health—			
Pensions Board.....	13,767 85		13,767 85
Pensions.....	103,475 06	11 78	103,463 28
Health.....	25,493 24	2 29	25,490 95
Post Office.....	619,505 84	3,619 07	615,886 77
Printing and Stationery.....	32,636 79		32,636 79
Privy Council.....	1,171 09		1,171 09
Public Works.....	130,871 62	473 48	130,398 14
Railways and Canals.....	68,851 79	404 30	68,447 49
Royal Canadian Mounted Police.....	5,987 90	2 28	5,985 62
Secretary of State.....	13,049 25	15 42	13,033 83
Senate.....	3,382 22		3,382 22
Trade and Commerce.....	134,466 21	337 65	134,128 56
Retired employees.....	18,552 67	658 74	17,893 93
	2,414,305 17	7,514 52	2,406,790 65
		Dr.	Cr.
		\$ cts.	\$ cts.
By Balance April 1, 1929.....			23,946,981 80
By Contributions less refunds.....			2,406,790 65
By Interest at 4% to March 31, 1930.....			984,843 93
By Transfer from Consolidated Fund.....			1,892,590 92
To Annuities paid to March 31, 1930.....		751,657 76	
To Gratuities paid to March 31, 1930.....		32,950 48	
To Withdrawals paid to March 31, 1930.....		113,675 66	
To Balance carried to fiscal year 1930-31.....		28,332,923 40	
		29,231,207 30	29,231,207 30
By Balance March 31, 1930.....			28,332,923 40

Appendix No. 19

STATEMENT showing the Loans authorized, amounts issued and redeemed and the balance negotiable under the several acts of Parliament on March 31, 1930.

—	Dr.	\$	cts.	—	Cr.	\$	cts.
1929 April 1.	To Balance.....	180,366,377	09	1930 Mar. 31	By Balance negotiable.....	182,656,110	80
	To payments over receipts in Savings Bank.....	2,289,733	71				
		182,656,110	80				
1930 April 1.	To Balance negotiable....	182,656	110 80				

Mines—Inside.....	253	51	304	.....	589,220 87	101,540 08	690,760 95
Outside.....	15	15	15	.....	35,780 81	.....	35,780 81
National Defence—	326	83	409	.....	620,400 00	105,320 00	725,720 00
Outside.....	306	34	340	.....	474,747 75	53,494 00	528,241 75
National Revenue—	303	38	342	.....	586,940 00	65,820 00	655,040 00
Inside.....	3,609	499	4,121	.....	6,513,705 00	877,810 00	7,420,195 00
Outside.....	681	.....	681	.....	1,255,838 00	.....	1,255,838 00
Income Tax	.....	.....	.....	.....	.....	.....	.....
Branch	.....	.....	.....	.....	.....	.....	.....
Pensions and National Health—	.....	.....	.....	.....	.....	.....	.....
Inside.....	550	26	576	.....	895,320 00	34,890 00	930,210 00
Outside.....	1,266	17	1,284	.....	2,008,700 00	29,025 00	2,039,705 00
Post Office—	731	70	805	.....	1,188,659 00	101,180 00	1,299,679 00
Inside.....	6,944	2,972	9,933	.....	10,761,040 00	4,849,402 50	15,649,162 50
Outside.....	15	1	16	.....	40,460 00	420 00	40,880 00
Privy Council.....	247	9	256	.....	458,368 00	17,420 00	475,788 00
Public Printing & Stationery	278	27	306	.....	607,130 00	38,640 00	645,770 00
Public Works—	990	64	1,054	.....	1,534,897 20	82,840 80	1,617,738 00
Inside.....	102	4	106	.....	248,980 00	6,360 00	255,340 00
Outside.....	631	68	699	.....	959,740 00	88,065 00	1,047,805 00
Royal Canadian Mounted Police	55	5	60	.....	102,885 00	5,601 73	108,486 73
Secretary of State	66	27	93	.....	111,000 00	42,360 00	153,360 00
Patent and Copy-	.....	.....	.....	.....	.....	.....	.....
right office.....	83	13	97	.....	153,440 00	16,920 00	173,060 00
Senate.....	25	1	27	.....	71,700 00	3,420 00	80,240 00
Soldier Settlement Board.....	7	2	9	.....	26,480 00	5,520 00	32,000 00
Trade and Commerce—	285	61	346	.....	502,700 00	87,900 00	590,600 00
Inside.....	905	86	993	.....	1,965,355 00	223,980 00	2,194,135 00
Outside.....	.....	.....	.....	.....	.....	.....	.....
	25,088	5,510	30,653	105,278 98	43,948,450 04	9,127,365 63	53,217,274 65
	36	19	.....	36,180 00	.....	.....	53,217,274 65

Appendix No. 21

DECAYED PILOTS' FUND

IN ACCOUNT WITH THE DOMINION OF CANADA

1929				
April 1—	Balance from March 31, 1929.....	\$	112,973 57	
	Receipts April 1, 1929 to March 31, 1930.....		12,608 04	
	Interest on Bonds—			
	War Loan 1916-31.....	\$	200 00	
	War Loan 1917-37.....		100 00	
	Victory Loan 1917.....		522 50	
	Victory Loan 1919.....		1,100 00	
	Refunding Loan 1923.....		1,050 00	
	Refunding Loan 1926.....		270 00	
	Province of Manitoba 6% Bonds.....		360 00	
	Province of Ontario 5% Bonds.....		1,200 00	
	Province of Quebec 4½% Bonds.....		225 00	
	Province of Quebec 6% Bonds.....		240 00	
			<u>5,267 50</u>	
	Interest on deposit with Government.....		180 43	
		\$	131,029 54	
	Less—Pensions to Pilots and Widows.....	\$	15,681 24	
	Less—Premium on \$10,000 Refunding Loan 1923 Bonds purchased		45 00	
	at 100.45.....			
	Less—Interest on \$10,000 Refunding Loan 1923 Bonds purchased,		91 78	
	67 days at 5%.....			
			<u>15,818 02</u>	
		\$	<u>115,211 52</u>	
	Gain for year \$2,237.95.			
1930				
Mar. 31—	Cash on deposit with Government.....	\$	8,211 52	
	Bonds held by Government as under:—			
	5% War Loan 1916-31.....	\$	4,000 00	
	5% War Loan 1917-37.....		2,500 00	
	5½% Victory Loan 1917.....		9,500 00	
	5½% Victory Loan 1919.....		20,000 00	
	5½% Refunding Loan 1923.....		26,000 00	
	4½% Refunding Loan 1926.....		6,000 00	
	6% Province of Manitoba Bonds.....		6,000 00	
	5% Province of Ontario Bonds.....		24,000 00	
	4½% Province of Quebec Bonds.....		5,000 00	
	6% Province of Quebec Bonds.....		4,000 00	
			<u>107,000 00</u>	
		\$	<u>115,211 52</u>	

Appendix No. 22

HALIFAX PILOTS' PENSION FUND

IN ACCOUNT WITH THE DOMINION OF CANADA

1929			
April 1—	Balance from March 31, 1929.....	\$	82,368 55
	Receipts from April 1, 1929 to March 31, 1930.....		6,231 24
	Interest on Bonds—		
	Victory Loan 1917.....	\$	2,200 00
	Victory Loan 1919.....		556 00
	Refunding Loan 1923.....		150 00
	Refunding Loan 1924.....		157 50
	Refunding Loan 1926.....		810 00
	Dominion of Canada Stock, 1930-50.....		109 02
			<u>3,976 52</u>
	Interest on deposit with Government.....		102 27
		\$	<u>92,678 58</u>
	Less—Pensions to Pilots and Widows.....	\$	3,689 84
	Less—Premium on \$6,000 Refunding Loan 1923 Bonds purchased		
	at 100.60.....		36 00
	Less—Interest on \$6,000 Refunding Loan 1923 Bonds purchased, 60		
	days at 5%.....		49 32
			<u>3,775 16</u>
		\$	<u>88,903 42</u>
Gain for year \$6,534.87.			
1930			
Mar. 31—	Cash on Deposit with Government.....	\$	7,510 09
	Bonds and Stock held by the Government as under:—		
	5½% Victory Loan 1917.....	\$	40,000 00
	5½% Victory Loan 1919.....		10,000 00
	5% Refunding Loan 1923.....		6,000 00
	4½% Refunding Loan 1924.....		3,500 00
	4½% Refunding Loan 1926.....		18,000 00
	3½% 1930-50 Dominion of Canada Stock.....		3,893 33
			<u>81,393 33</u>
		\$	<u>88,903 42</u>

DEPARTMENT OF FINANCE

Appendix No. 23

SYDNEY PILOTS' PENSION FUND

IN ACCOUNT WITH THE DOMINION OF CANADA

1929				
April 1—	Balance from March 31, 1929.....	\$	42,421 08	
	Receipts from April 1, 1929 to March 31, 1930.....		8,152 26	
	Interest on Bonds—			
	War Loan 1916-31.....	\$	50 00	
	Victory Loan 1918.....		110 00	
	Victory Loan 1919.....		429 00	
	Refunding Loan 1923.....		200 00	
	Refunding Loan 1925.....		135 00	
	Refunding Loan 1926.....		900 00	
			1,824 00	
	Interest on deposit with Government.....		118 46	
		\$	52,515 80	
	Less—Pensions to Pilots and Widows.....	\$	2,765 00	
	Less—Premium on \$8,000 Refunding Loan 1923 Bonds purchased at 100.60.....		48 00	
	Less—Interest on \$8,000 Refunding Loan 1923 Bonds purchased, 60 days at 5%.....		65 75	
			2,878 75	
		\$	49,637 05	

Gain for year \$7,215.97.

1930				
Mar. 31—	Cash on deposit with Government.....	\$	7,837 05	
	Bonds held by Government as under:—			
	5% War Loan 1916-31.....	\$	1,000 00	
	5½% Victory Loan 1918.....		2,000 00	
	5½% Victory Loan 1919.....		7,800 00	
	5% Refunding Loan 1923.....		8,000 00	
	4½% Refunding Loan 1925.....		3,000 00	
	4½% Refunding Loan 1926.....		20,000 00	
			41,800 00	
		\$	49,637 05	

Appendix No. 24

ST. JOHN PILOTS' PENSION FUND

IN ACCOUNT WITH THE DOMINION OF CANADA

1929				
April 1—	Balance from March 31, 1929.....	\$	43,354 85	
	Receipts from April 1, 1929 to March 31, 1930.....		5,793 97	
	Interest on Bonds—			
	War Loan 1916-31.....	\$	50 00	
	War Loan 1917-37.....		50 00	
	Victory Loan 1919.....		330 00	
	Refunding Loan 1924.....		247 50	
	Refunding Loan 1926.....		540 00	
	Province of New Brunswick Bonds.....		852 50	
			2,070 00	
	Interest on deposit with Government.....		6 59	
		\$	51,225 41	
	Less Pensions to Pilots and Widows.....		6,370 13	
		\$	44,855 28	
	Gain for year \$1,500.43.			
1930				
Mar. 31—	Cash on deposit with Government.....	\$	3,855 28	
	Bonds held by Government as under:—			
	5% War Loan 1916-31.....	\$	1,000 00	
	5% War Loan 1917-37.....		1,000 00	
	5½% Victory Loan 1919.....		6,000 00	
	4½% Refunding Loan 1924.....		5,500 00	
	4½% Refunding Loan 1926.....		12,000 00	
	5½% Province of New Brunswick Bonds.....		15,500 00	
			41,000 00	
		\$	44,855 28	

Appendix No. 25

THE CANADIAN NORTHERN RAILWAY COMPANY

IN ACCOUNT WITH THE MINISTER OF FINANCE AND RECEIVER GENERAL OF CANADA
Authorized issue of £1,622,586 19s. 9d. guaranteed by the Dominion of Canada
(Chapter 11, Acts of 1908)

	Dr.	Cr.
	\$ cts.	\$ cts.
By proceeds of sale of £1,263,698 19s. 9d., or \$6,150,000 3½ per cent first mortgage debenture stock sold <i>en bloc</i> for..... \$ 6,000,000 00 Less exchange at \$4.862142 in transfer to Canada..... 5,577 08		5,994,422 92
By proceeds of £358,888 3½ per cent first mortgage debenture stock sold in March, 1911, at a net price to the company of 92, £330,176 19s. 2d..... \$ 1,606,861 19 Less exchange in transfer to Canada..... 4,326 51		1,602,534 68 461,489 62
By interest accrued to Nov. 30, 1929, on deposits.....		
To amount of payments made to the company under sundry certificates from the Government Engineer.....	7,442,346 31 616,100 91	
To balance.....	8,058,447 22	8,058,447 22
March 31, 1930, By balance.....		616,100 91

Appendix No. 26

THE CANADIAN NORTHERN RAILWAY COMPANY

IN ACCOUNT WITH THE MINISTER OF FINANCE AND RECEIVER GENERAL OF CANADA
Authorized issue of \$45,000,000 guaranteed by the Dominion of Canada
(Chapter 20, Acts of 1914)

	Dr.	Cr.
	\$ cts.	\$ cts.
By advance made by Dominion Government, August to December, 1914, against pledge of \$12,500,000 of 4 per cent bonds, advance being by issue of Dominion Notes at various times and subsequently confirmed by Legislation, Chap. 4-5, Geo. V, Acts of 1915.....		10,000,000 00
By proceeds, sale of £3,000,000 4 per cent bonds in July, 1914, at a net price to the company of 91½..... £ 2,745,000 0 0 \$13,359,000 00		
By profit on exchange in transfer to Canada..... 109,361 32		13,468,361 32
By proceeds, sale of £500,000 4 per cent bonds in February, 1915, at a price to the company of 91 plus accrued interest..... £ 455,000 0 0 Accrued interest..... 7,145 6 5		
£ 462,145 6 5 \$ 2,249,107 23		
To loss on exchange in transfer to Canada..... 8,279 55		2,240,827 68
By advance made by Columbia Trust Co., New York, September, 1915, against pledge of \$15,333,333.34 4 per cent bonds, said bonds being pledged as security for the repayment of notes issued by the company, due September 1, 1917, for \$11,500,000. These notes were sold on a 6 per cent basis less underwriting claims, the net proceeds being.....		11,084,850 00
On September 1, 1917, when these notes came due to enable the company to take them up the Government advanced to the company \$9,981,021.03 against security of \$15,306,334 of the above 4 per cent bonds, the remaining bonds (\$27,000) were sold under the option given to holders of the notes at the price of 79 per cent, and the difference in proceeds, namely 6.7075% reverted to the credit of this account being..... \$ 1,811 03		
By gain on exchange from New York..... 33 95		1,844 98 330,176 06
By interest accrued to Nov. 30, 1929.....		
To amount of payments made to the company under sundry certificates from the Government Engineer.....	37,123,348 11 2,711 93	
To balance.....	37,126,060 04	37,126,060 04
March 31, 1930. By balance.....		2,711 93

Appendix No. 27

THE CANADIAN NORTHERN ONTARIO RAILWAY COMPANY
IN ACCOUNT WITH THE MINISTER OF FINANCE AND RECEIVER GENERAL OF CANADA

Authorized issue of £7,350,000 guaranteed by the Dominion of Canada
(Chapter 6, Acts of 1911)

	Dr.	Cr.
	\$ cts.	\$ cts.
By proceeds of £7,000,000 3½ per cent first mortgage debenture stock sold at a net price to the company of 90½.....£ 6,352,500 0 0 \$30,915,500 00 Less exchange in transfer to Canada.....1,531 34		30,913,968 66
By advance made by the Guaranty Trust Company of New York, July, 1913, on £293,837 first mortgage debenture stock pledged as security.....		1,001,004 71
By proceeds of sale of £33,561 in July, 1914, of this stock at a net price of 88..£ 29,533 14 0		
By advance made by Lloyds Bank Ltd., London, on £22,602 of above stock pledged as security (£70 advanced July, 1914, for each £100 of pledged securities).....15,821 8 0		
£ 45,355 2 0 \$ 220,728 15		
By profit on exchange in transfer to Canada.....188 84		220,916 99
By interest accrued to Nov. 30, 1929, on deposits.....		1,629,210 49
To amount of payments made to the company under sundry certificates from the Government Engineer.....	33,005,146 44	
To balance.....	759,954 41	
	33,765,100 85	33,765,100 85
March 31, 1930. By balance.....		759,954 41

Appendix No. 28

THE CANADIAN NORTHERN ALBERTA RAILWAY COMPANY
IN ACCOUNT WITH THE MINISTER OF FINANCE AND RECEIVER GENERAL OF CANADA

Authorized issue of £647,260 guaranteed by the Dominion of Canada
(Chapter 6, Acts of 1910, as amended by Chapter 8, Acts of 1912)

	Dr.	Cr.
	\$ cts.	\$ cts.
By proceeds of sale of £647,260 in October, 1911, 3½ per cent first mortgage debenture stock at a net price to the company of 92, £595,479 4s. 0d.....\$ 2,897,998 77 Less exchange in transfer to Canada.....7,819 69		2,890,179 08
By interest accrued to Nov. 30, 1929, on deposits.....		85,713 39
To amount of payments made to the company under sundry certificates from the Government Engineer.....	2,952,897 03	
To balance.....	22,995 44	
	2,975,892 47	2,975,892 47
March 31, 1930. By balance.....		22,995 44

Appendix No. 29

THE CANADIAN NORTHERN ALBERTA RAILWAY COMPANY

IN ACCOUNT WITH THE MINISTER OF FINANCE AND RECEIVER GENERAL OF CANADA

Authorized issue of £733,561 guaranteed by the Dominion of Canada
(Chapter 7, Acts of 1912)

	Dr.	Cr.
	\$ cts.	\$ cts.
By proceeds of £410,959 issue, 3½ per cent debenture stock, sold in November, 1912, at a net price to the company of 90, £369,863 2s. 0d.....	\$ 1,800,000 13	
Loss on transfer to Canada.....	0 13	
		1,800,000 00
By advances made by the Canadian Bank of Commerce, July, 1913, on the pledging of \$1,350,000 3½ per cent debenture stock (\$70 advanced for each \$100 pledged).....		945,000 00
By advances made by the Guaranty Trust Company of New York, July, 1913, on £45,206 3½ per cent debenture stock pledged as security.....		154,001 77
By interest accrued to Nov. 30, 1929, on deposits.....		44,575 39
To amount of payments made to the company under sundry certificates from the Government Engineer.....	2,927,440 00	
To balance.....	16,137 16	
	2,943,577 16	2,943,577 16
March 31, 1930. By balance.....		16,137 16

Appendix No. 30

INDIAN TRUST FUND

STATEMENT SHOWING transactions in connection with the Fund during the year ended March 31, 1930

Details	Debit	Credit
	\$ cts.	\$ cts.
Balance, March 31, 1929.....		13,629,403 74
Collections on land sales, timber and stone dues, rents, fines and fees.....		939,302 79
Interest for the year ending March 31, 1930.....		692,368 62
Legislative grants to supplement the funds.....		9,000 00
Outstanding cheques 1927-28.....		154 84
Transfer from Finance Department—Liquor fine—Yorkton, Sask.....		13 00
Expenditure during the year.....	1,333,721 95	
Transfers by warrant.....	80,000 00	
Balance March 31, 1930.....	13,856,521 04	
	15,270,242 99	15,270,242 99

Appendix No. 31

DOMINION NOTE CIRCULATION

Denomination	March 31, 1926	March 31, 1927	March 31, 1928	March 31, 1929	March 31, 1930
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
\$ 1.....	16,943,453 50	17,428,020 50	18,100,000 50	19,277,084 50	18,943,815 00
2.....	12,231,463 50	12,609,981 50	13,039,459 50	13,825,560 50	13,776,806 50
4.....	33,547 00	33,071 00	32,635 00	32,223 00	31,887 00
5.....	428,672 50	700,147 50	294,072 50	277,612 50	1,109,692 50
50.....	650 00	650 00	650 00	650 00	650 00
500.....	1,790,500 00	1,736,000 00	1,791,500 00	1,832,000 00	1,907,500 00
1,000.....	3,344,000 00	4,103,000 00	4,244,000 00	4,289,000 00	4,569,000 00
1,000 Special.....	648,000 00	433,000 00	281,000 00	427,000 00	479,000 00
5,000 Special.....	16,600,000 00	9,950,000 00	7,810,000 00	7,570,000 00	6,700,000 00
50,000 Special.....	129,200,000 00	123,800,000 00	141,650,000 00	155,550,000 00	125,400,000 00
Fractional.....	1,335,494 19	1,346,145 19	1,360,548 58	1,392,463 21	1,380,648 47
Provincial.....	27,623 53	27,623 53	27,623 53	27,622 83	27,618 83
	182,583,404 22	172,167,639 22	188,631,489 61	204,501,216 54	174,326,618 30

Appendix No. 32

DOMINION NOTES WITHDRAWN FROM CIRCULATION AND DESTROYED

Denomination	1925-26	1926-27	1927-28	1928-29	1929-30
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Fractional.....	182,527 24	172,450 00	178,816 61	180,620 37	190,971 74
\$1.....	21,994,944 50	20,405,923 00	21,725,052 00	21,520,633 00	24,595,337 50
\$2.....	16,766,314 00	15,189,788 00	16,277,078 00	15,765,067 00	17,487,552 00
\$4.....	712 00	476 00	436 00	412 00	332 00
\$5.....	1,373,727 50	601,850 00	376,735 00	1,136,380 00	841,380 00
Provincials.....	63 00			70	4 00
\$500.....	15,063,000 00	1,761,000 00	1,009,000 00	440,500 00	549,500 00
\$1,000.....	10,573,000 00	14,852,000 00	2,624,000 00	5,235,000 00	837,000 00
\$1,000 Special.....	271,000 00	354,000 00	264,000 00	101,000 00	197,000 00
\$5,000 Special.....	1,930,000 00	3,720,000 00	7,330,000 00	3,485,000 00	6,385,000 00
\$50,000 Special.....	3,800,000 00	17,100,000 00	8,600,000 00	10,700,000 00	22,900,000 00
	71,955,288 24	74,157,487 00	58,385,117 61	58,564,613 07	73,984,077 24

Appendix No. 33

DOMINION NOTES ISSUED AND REDEEMED AND IN CIRCULATION

Fiscal Year	Notes in circulation April 1	Notes held by Asst. Rec's General April 1	New Notes Issued during year	Notes Withdrawn and destroyed during year	Notes held by Asst. Rec's General March 31, 1930	Notes in circulation March 31, 1930
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1912-13.....	113,443,633 40	28,406,318 75	39,949,522 50	33,648,544 00		
1913-14.....	112,101,885 65	35,849,045 00	44,870,977 50	34,950,615 87		
1914-15.....	117,795,638 53	40,075,653 75	59,054,750 00	28,243,244 62		
1915-16.....	157,056,118 91	31,626,678 75	55,597,250 00	25,917,736 12		
1916-17.....	177,943,131 54	40,284,180 00	35,370,750 00	29,468,918 75		
1917-18.....	183,248,986 79	40,880,156 00	152,019,000 00	32,802,120 87		
1918-19.....	250,798,860 92	92,547,161 00	99,791,250 00	33,345,420 25		
1919-20.....	298,058,697 67	111,733,154 00	45,138,500 00	39,743,428 25		
1920-21.....	311,032,791 92	103,254,131 50	98,964,000 00	44,957,879 50		
1921-22.....	277,882,884 92	191,310,159 00	34,420,500 00	44,963,245 50		
1922-23.....	241,461,426 42	217,188,872 00	51,144,550 00	44,502,764 00		
1923-24.....	242,657,765 42	222,634,319 00	462,654,950 00	347,060,482 34		
1924-25.....	216,625,004 33	364,261,547 75	373,319,000 00	474,567,557 62		
1925-26.....	206,712,088 46	272,925,906 00	65,196,500 00	71,955,288 24		
1926-27.....	182,583,404 22	290,295,802 00	71,558,500 00	74,157,487 00		
1927-28.....	172,167,639 22	298,112,580 00	45,578,500 00	58,385,117 61		
1928-29.....	188,631,439 61	268,842,112 00	44,152,000 00	58,564,613 07		
1929-30.....	204,501,216 54	238,559,772 00	44,757,000 00	73,984,077 24	239,507,293 00	174,326,618 30

DEPARTMENT OF FINANCE

Appendix No. 34

SILVER RECOINAGE STATEMENT

	Amount withdrawn for recoinage face value	Amount withdrawn for recoinage net value	Amount recoined face value	Loss on recoinage	Gain on recoinage
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April 30, 1914.....	997,735 21	988,691 57	928,539 00	60,152 57	.....
March 31, 1915.....	106,015 65	104,132 63	96,893 15	7,239 48	.....
March 31, 1916.....	156,830 00	154,243 85	143,354 10	10,889 75	.....
March 31, 1917.....	93,687 15	92,093 28	85,506 45	6,586 83	.....
March 31, 1918.....	79,205 65	77,817 03	72,131 20	5,685 83	.....
March 31, 1919.....	66,679 80	65,540 75	60,516 50	5,024 25	.....
March 31, 1920.....	58,896 35	58,134 99	57,641 00	493 99	.....
March 31, 1921.....	68,083 05	67,246 05	71,584 45	.....	4,338 40
March 31, 1922.....	273,588 05	272,614 31	133,784 15	.....	8,360 39
March 31, 1923.....	177,786 95	176,733 26	.....	.....	.....
March 31, 1924.....	148,502 35	146,538 74	.....	.....	.....
March 31, 1925.....	135,044 05	133,806 96	.....	.....	.....
March 31, 1926.....	279,057 60	277,124 80	.....	.....	.....
March 31, 1927.....	716,407 45	713,592 41	.....	.....	.....
March 31, 1928.....	524,757 65	522,001 46	185,638 75	.....	17,688 68
March 31, 1929.....	219,069 00	217,060 94	804,625 80	.....	75,807 27
March 31, 1930.....	269,567 20	266,327 70	862,909 35	.....	81,339 08
	4,370,913 16	4,333,700 73	3,503,123 90	96,072 70	187,533 82

Balance held for Recoinage, net value, March 31, 1930: \$922,037.95.

Appendix No. 35

COPPER RECOINAGE STATEMENT

	Amount withdrawn for recoinage face value	Amount withdrawn for recoinage net value	Amount recoined face value	Loss on recoinage	Gain on recoinage
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
March 31, 1914.....	321 49	284 64	272 31	12 33	.....
March 31, 1915.....	46 50	36 23	43 78	.....	7 55
March 31, 1916.....	54 43	41 02	51 53	.....	10 51
March 31, 1917.....	75 56	58 67	72 04	.....	13 37
March 31, 1918.....	62 84	47 38	59 50	.....	12 12
March 31, 1919.....	89 02	68 22	83 82	.....	15 60
March 31, 1920.....	123 96	96 17	118 94	.....	22 77
March 31, 1921.....	157 27	124 49	262 43	.....	137 94
March 31, 1922.....	464 88	359 87	.....	.....	.....
March 31, 1923.....	347 79	286 71	1,088 50	.....	577 68
March 31, 1924.....	378 77	301 01	532 18	.....	264 93
March 31, 1925.....	311 29	250 16	595 98	.....	302 48
March 31, 1926.....	517 73	415 60	853 34	.....	433 37
March 31, 1927.....	5,403 12	5,289 13	7,863 46	.....	3,388 07
March 31, 1928.....	744 99	618 14	1,922 66	.....	851 62
March 31, 1929.....	4,221 13	4,112 99	7,051 79	.....	3,120 90
March 31, 1930.....	6,448 71	6,312 79	1,140 16	.....	490 16
	19,769 48	18,703 22	22,012 42	12 33	9,649 07

Balance held for Recoinage, net value, March 31, 1930: \$6,327.54.

Appendix No. 36

DOMINION NOTES ISSUED TO ASSISTANT RECEIVERS GENERAL

Denomination	1925-26	1926-27	1927-28	1928-29	1929-30
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Fractional.....	227,500 00	177,500 00	192,500 00	210,000 00	195,000 00
\$1.....	22,480,000 00	21,888,000 00	21,760,000 00	22,176,000 00	24,272,000 00
\$2.....	17,424,000 00	15,728,000 00	16,576,000 00	16,016,000 00	17,520,000 00
\$5.....	.....	40,000 00	.....	600,000 00	620,000 00
\$500.....	14,595,000 00	1,875,000 00	1,200,000 00	250,000 00	650,000 00
\$1,000.....	10,420,000 00	15,950,000 00	2,800,000 00	4,850,000 00	1,000,000 00
\$1,000 Special .....	.....	250,000 00	800,000 00	50,000 00	500,000 00
\$5,000 "	50,000 00	15,650,000 00	2,250,000 00	.....	.....
	65,196,500 00	71,558,500 00	45,578,500 00	44,152,000 00	44,757,000 00

Appendix No. 37

STATEMENT showing One and Two Dollar Dominion Notes in Circulation—
Total amount of Dominion Notes and Bank Notes in Circulation and amount
of Gold held by the Receiver General, March 31, 1882, to March 31, 1930.

Year	One and Two Dollar Notes in Circulation	Total Dominion Notes in Circulation	Bank Notes in Circulation	Gold held by the Receiver General*	Gold held by Royal Mint for Receiver General
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1882.....	5,675,413 00	14,315,437 77	32,947,260 04	2,149,461 92	.....
1883.....	5,809,538 00	15,801,769 98	34,517,813 52	2,381,288 51	.....
1884.....	5,427,385 00	16,901,296 46	30,197,882 51	2,548,794 52	.....
1885.....	5,290,655 00	15,600,166 86	29,791,262 85	2,845,525 44	.....
1886.....	5,195,631 00	16,858,838 28	29,959,916 55	4,060,046 84	.....
1887.....	5,761,588 00	14,781,270 78	31,521,420 43	2,516,972 36	.....
1888.....	5,933,659 00	15,931,679 11	31,985,285 27	3,452,022 09	.....
1889.....	5,852,398 00	15,110,965 33	32,471,522 09	3,925,994 19	.....
1890.....	5,974,395 00	15,228,780 65	31,704,281 61	3,017,109 53	.....
1891.....	6,262,728 00	16,156,465 48	33,020,661 30	3,789,704 21	.....
1892.....	6,211,976 00	16,213,525 76	32,483,965 00	3,728,463 36	.....
1893.....	6,526,193 00	17,587,711 66	33,430,883 00	5,550,381 36	.....
1894.....	6,362,517 00	19,548,102 45	30,702,607 00	7,624,381 36	.....
1895.....	6,339,098 00	20,946,237 12	29,414,796 00	9,175,245 43	.....
1896.....	6,606,214 00	18,791,747 62	30,789,457 00	7,049,897 33	.....
1897.....	6,711,754 00	21,987,613 26	31,082,521 00	10,350,205 37	.....
1898.....	7,306,574 00	21,142,624 76	35,930,085 00	9,779,170 97	.....
1899.....	7,902,076 00	22,933,078 39	58,409,227 00	11,768,191 25	.....
1900.....	8,599,618 00	24,452,442 52	43,814,918 00	10,829,263 02	.....
1901.....	9,136,829 00	28,498,519 52	47,611,967 00	15,159,309 02	.....
1902.....	9,546,552 00	29,868,112 05	52,442,982 00	15,939,396 55	.....
1903.....	10,671,569 00	33,777,733 58	58,283,484 00	20,702,144 08	.....
1904.....	11,241,646 00	39,777,381 33	59,760,119 00	27,377,814 83	.....
1905.....	11,616,702 00	47,839,250 33	58,721,173 00	35,813,970 43	.....
1906.....	12,697,203 00	47,201,260 22	65,991,818 00	32,617,209 02	.....
1907.....	14,427,814 00	54,794,596 86	76,346,013 00	37,619,596 81	.....
1908.....	14,119,524 00	60,455,991 36	69,047,892 00	41,689,751 31	.....
1909.....	14,215,537 00	79,351,080 50	68,708,458 00	61,581,665 45	.....
1910.....	15,728,269 00	87,134,068 50	78,265,822 00	69,736,110 85	.....
1911.....	17,155,996 00	89,994,270 25	81,938,753 00	74,159,771 40	.....
1912.....	19,356,015 00	113,443,633 40	95,918,404 00	98,802,395 14	.....
1913.....	20,783,997 00	112,101,885 65	102,202,047 00	98,507,112 81	.....
1914.....	20,605,876 00	117,795,638 53	96,848,384 00	101,161,366 18	.....
1915.....	20,236,008 50	157,056,118 91	96,666,544 00	94,644,423 44	.....
1916.....	21,927,267 50	177,943,131 54	114,804,604 00	120,931,622 98	.....
1917.....	24,041,642 50	183,248,986 79	148,265,140 00	118,561,338 50	.....
1918.....	25,771,009 50	250,798,860 92	191,058,404 00	119,941,748 92	.....
1919.....	27,378,740 00	298,058,697 67	214,576,870 00	121,141,122 07	.....
1920.....	29,789,653 00	311,932,791 92	225,769,628 00	104,399,455 48	.....
1921.....	29,275,112 00	277,882,884 92	206,094,668 00	83,381,036 53	.....
1922.....	26,722,658 50	241,461,426 42	162,651,367 00	84,249,497 86	.....
1923.....	27,775,672 00	242,657,765 42	173,258,362 00	128,740,130 31	.....
1924.....	28,542,907 50	216,625,004 33	170,850,556 00	102,079,239 56	151,000 00
1925.....	27,911,606 50	206,712,088 46	157,888,900 00	122,662,151 12	149,000 00
1926.....	29,174,917 00	182,583,404 22	163,952,235 00	97,797,622 62	621,014 29
1927.....	30,038,002 00	172,167,639 22	163,807,355 00	100,156,579 05	729,363 87
1928.....	31,139,460 00	188,631,489 61	176,805,067 00	94,885,373 23	1,138,899 05
1929.....	33,102,645 00	204,501,216 54	188,726,256 00	60,348,309 11	557,036 01
1930.....	32,720,621 50	174,326,618 30	162,860,748 00	65,447,667 39	441,772 55

* Includes amount held as reserve against Savings Bank Deposits.

Appendix No. 38

STATEMENT showing Amount of Canadian Gold Coin struck by Royal Mint to March 31, 1930.

	March 31, 1913	March 31, 1914	March 31, 1915	March 31, 1916	Total
	\$	\$	\$	\$	\$
Montreal.....	185,000	45,000			230,000
Toronto.....	280,000				280,000
Halifax.....	32,500				32,500
Saint John, N.B.....	37,500				37,500
Charlottetown.....	8,000				8,000
Winnipeg.....	125,000				125,000
Victoria.....	162,500				162,500
Ottawa.....	898,325	2,151,410	897,170	535	3,947,440
By Mint.....	3,885	1,070	40,525		45,480
	1,732,710	2,197,480	937,695	535	4,868,420

\$5	1,388,060
\$10.....	3,480,360
	<u>4,868,420</u>

NOTE.—First coin issued May 10, 1912.

NO CANADIAN GOLD COIN ISSUED SINCE 1916

Appendix No. 39

COINAGE (in dollar and cent denomination) executed at the Royal Mint, London, and the Mint, Birmingham, for Canada, during the years 1858 to 1907; also coinage struck for New Brunswick and Nova Scotia before Confederation in 1867, and for Prince Edward Island before 1873, when that Province entered the Confederation, and coined and issued by the Royal Mint, Ottawa, January 1, 1908, to December 31, 1929.

Year	Silver						Nickel	Bronze
	50 cents	25 cents	20 cents	10 cents	5 cents	Total		
	\$	\$ cts.	\$	\$	\$	\$ cts.	\$	\$
1858.			150,000	125,000	75,000	350,000 00		100,000
1859.								95,790
1860.								1,114
1861.								(a) 10,000
1861.								(b) 10,000
1862.			30,000	15,000	5,000	50,000 00		(a) 10,000
1862.								(b) 10,000
1864.			30,000	10,000	5,000	45,000 00		(a) 10,000
1864.								(b) 10,000
1870.	225,000	225,000 00		160,000	140,000	750,000 00		(c) 10,000
(j) 1871.								
1871.	100,000	100,000 00		80,000	70,000	350,000 00		
(j) 1872.	40,000	560,000 00		100,000	100,000	800,000 00		
(j) 1874.		400,000 00		60,000	40,000	500,000 00		
(j) 1875.		250,000 00		100,000	50,000	400,000 00		
(j) 1876.								40,000
1880.		100,000 00		150,000	150,000	400,000 00		
(j) 1880.				95,000	75,000	450,000 00		20,000
(j) 1881.	75,000	205,000 00		100,000	50,000	300,000 00		40,000
(j) 1882.		150,000 00		30,000	30,000	300,000 00		
(j) 1883.		240,000 00		15,000	10,000	25,000 00		25,000
1884.				40,000	50,000	138,000 00		
1885.		48,000 00		80,000	85,000	300,000 00		15,000
1886.		135,000 00		35,000	25,000	85,000 00		15,000
1887.		25,000 00		50,000	50,000	230,000 00		40,000
1888.	30,000	100,000 00		60,000	60,000	136,585 00		
1889.		(d) 16,585 00		45,000	50,000	155,000 00		10,000
(j) 1890.	10,000	50,000 00		80,000	90,000	200,000 00		(i) 14,525
1891.		30,000 00		52,000	43,000	298,000 00		12,000
1892.	75,500	127,500 00		50,000	85,000	160,000 00		20,000
1893.		25,000 00		50,000	25,000	144,518 00		10,000
1894.	(e) 14,518	55,000 00						12,000
1895.				65,000	75,000	140,000 00		20,000
1896.								15,000
1897.								
1898.	50,000			72,000	95,000	217,000 00		10,000
(g) 1898.								24,000
1899.	25,000	(f) 103,895 00		120,000	150,000	398,895 00		10,000
1900.	59,000	330,000 00		110,000	90,000	589,000 00		26,000
(j) 1900.								41,000
1901.	40,000	160,000 00		72,000	106,000	354,000 00		30,000
1902.	60,000	116,000 00		110,000	110,000	420,000 00		
(j) 1902.		200,000 00		50,000	50,000	311,537 50		40,000
1903.		(g) 211,537 50		132,000	132,000	334,000 00		
(j) 1903.	70,000			100,000	120,000	350,000 00		25,000
1904.	30,000	100,000 00		100,000	130,000	450,000 00		20,000
1905.	20,000	200,000 00		170,000	155,000	809,460 75		41,000
1906.	175,000	(h) 309,460 75		262,000	260,000	1,194,000 00		24,000
1907.	150,000	522,000 00						8,000
(j) 1907.								21,604
1908.	7,700	22,025 00		14,900	18,400	63,025 00		39,300
1909.	126,600	403,900 00		337,000	223,100	1,464,000 00		42,020
1910.	243,600	660,300 00		367,700	239,300	1,391,000 00		54,480
1911.	162,000	622,000 00		334,500	284,500	1,392,000 00		50,000
1912.	150,500	622,500 00						
Forward.....	1,939,418	7,425,703 25	210,000	4,329,400	3,828,800	17,733,321 25		1,071,833

Appendix No. 39—Concluded

COINAGE (in dollar and cent denomination) executed at the Royal Mint, London, and the Mint, Birmingham, for Canada, during the years 1858 to 1907; etc.—Concluded.

Year	Silver						Nickel	Bronze
	50 cents	25 cents	20 cents	10 cents	5 cents	Total		
	\$	\$ cts.	\$	\$	\$	\$ cts.	\$	\$
Brought forward	1,939,418	7,425,703 25	210,000	4,329,400	3,828,800	17,733,321 25		1,071,833
1913.....	138,000	447,000 00		326,000	264,000	1,175,000 00		55,600
1914.....	80,500	303,500 00		194,000	156,002	734,002 00		35,100
1915.....	6,000	92,000 00		68,000	40,000	206,000 00		50,400
1916.....	190,000	439,700 00		464,300	208,000	1,302,000 00		110,700
1917.....	334,000	786,000 00		508,200	234,000	1,862,200 00		116,900
1918.....	434,000	1,056,000 00		574,000	338,000	2,402,000 00		131,917
1919.....	538,000	1,470,000 00		834,044	434,000	3,276,044 00		123,800
1920.....	122,000	262,000 00		508,000	446,000	1,338,000 00		200,385
1921.....	4,000	14,000 00		40,000	70,000	128,000 00		60,700
1922.....		6,000 00		18,000		24,000 00	69,000	12,400
1923.....		2,000 00		26,000		28,000 00	127,000	19,300
1924.....							74,500	11,900
1925.....	2,000			12,000		14,000 00	126,000	22,100
1926.....		24,000 00		26,000		50,000 00	168,500	28,200
1927.....		430,000 00		144,000		574,000 00	249,000	37,500
1928.....	6,000	535,000 00		326,000		867,000 00	250,000	92,100
1929.....	84,000	672,000 00		325,000		1,081,000 00	267,000	123,300
Total.....	3,877,918	13,964,903 25	210,000	8,722,944	6,018,802	32,794,567 25	1,331,000	2,304,135

NOTE.—(a) New Brunswick coinage. (b) Nova Scotia coinage. (c) Prince Edward Island coinage. (d) Recoined from withdrawn 20 cent pieces of the nominal value of \$17,074. (e) Recoined from withdrawn 20 cent pieces of the nominal value of \$15,000. (f) Including \$18,895 recoinod from withdrawn 20 cent pieces of the nominal value of \$9,500 and worn silver coin of the estimated value of \$10,500. (g) Partly produced from worn silver coin of the nominal value of \$11,686.75. (h) Partly produced from the worn silver coin of the nominal value of \$2,000. (i) Including \$4,525, produced from old copper and bronze coin. (j) Coined at the Mint, Birmingham.

The change from large to small copper coin was made May 17, 1920.

Appendix No. 40

STATEMENT showing amount of United States silver, nickel and bronze coin and Newfoundland coin, withdrawn from circulation in Canada, and exported during the period from April 1, 1910 to March 31, 1930, together with the expenditure in connection therewith.

	Totals 1910-1929		Fiscal year 1929-30		Totals 1910-1930	
	United States	Newfoundland	United States	Newfoundland	United States	Newfoundland
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Ontario.....	7,310,281 73	15,012 00	709,476 85	2,000 00	8,019,758 58	17,012 00
Quebec.....	3,363,873 99	36,000 00	603,000 00	33,000 00	3,966,873 99	69,000 00
Nova Scotia.....	308,440 40	127,800 00	31,300 00	32,000 00	339,740 40	159,800 00
New Brunswick.....	399,148 71	10,550 00	16,850 00	1,000 00	415,998 71	11,550 00
Manitoba.....	2,294,699 07	2,459 00	109,023 00	500 00	2,403,722 07	2,959 00
British Columbia.....	5,310,367 26	2,000 00	266,500 00		5,576,867 26	2,000 00
Alberta.....	839,552 17		45,000 00		884,552 17	
Saskatchewan.....	593,808 38	1,000 00	22,500 00		616,308 38	1,000 00
Prince Edward Island.....	13,085 00	6,000 00	1,000 00		14,085 00	6,000 00
Yukon.....	11,901 00				11,901 00	
Total.....	20,445,157 71	200,821 00	1,804,649 85	68,500 00	22,249,807 56	269,321 00
Commission paid.....	53,443 64				53,443 64	
Express charges.....	88,999 00	1,338 60	9,055 62	505 02	98,054 62	1,843 62
Total.....	142,442 64	1,338 60	9,055 62	505 02	151,498 26	1,843 62

Appendix No. 41

No. 1.—PROVINCE OF ALBERTA—Subsidy Account

Date		Dr.	Cr.
		\$ cts.	\$ cts.
1929			
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 640,700 as authorized by Sec. 1(1-b) of the B.N.A. Act, 1907. (Estimated population Jan. 1, 1929).....		256,280 00
	By $\frac{1}{2}$ year's allowance for Government and Legislature as authorized by Sec. 1 (1-a) of the B.N.A. Act, 1907.....		95,000 00
July 3....	To cash.....	351,280 00	
Sept. 1....	By $\frac{1}{2}$ year's allowance in lieu of Public Lands (Quinquennial Census July 1, 1926) population between 400,000 and 800,000 as authorized by 4-5 Edw. VII, Chap. 3 (1905) Sec. 20.....		281,250 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$8,107,500.00.....		202,687 50
	To cash.....	483,937 50	
1930			
Jan. 1....	By $\frac{1}{2}$ year's grant and allowance as above.....		351,280 00
2....	To cash.....	351,280 00	
Mar. 1....	By $\frac{1}{2}$ year's allowance in lieu of Public Lands (Quinquennial Census July 1, 1926) population between 400,000 and 800,000 as authorized by 4-5 Edw. VII, Chap. 3 (1905) Sec. 20.....	\$ 281,250 00	
	LESS: Amount to be applied against the overpayments made during the years 1914, 1915 and 1916 93,750 00.....		187,500 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$8,107,500.....		202,687 50
	To cash.....	390,187 50	
		1,576,685 00	1,576,685 00

No. 2.—PROVINCE OF BRITISH COLUMBIA—Subsidy Account

Date		Dr.	Cr.
		\$ cts.	\$ cts.
1929			
July 1....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 524,582 (Census 1921) as authorized by Section 1 (1-b) of the B.N.A. Act, 1907.....		209,832 80
	By $\frac{1}{2}$ year's grant for Government and Legislature as authorized by Sec. 1, (1a) of the B.N.A. Act of 1907.....		95,000 00
	By $\frac{1}{2}$ year's allowance in lieu of lands as authorized by O.C. Windsor, 16 May, 1871.....		50,000 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$583,021.40.....		14,575 53
July 3....	To cash.....	369,408 33	
1930			
Jan. 1....	By $\frac{1}{2}$ year's grants and allowances as above.....		369,408 33
Jan. 2....	To cash.....	369,408 33	
		738,816 66	738,816 66

Appendix No. 41—Continued

No. 3.—PROVINCE OF MANITOBA—Subsidy Account

Date		Dr.	Cr.
		\$ cts.	\$ cts.
1929			
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 660,000 as authorized by Sec. 1 (1-b), of the B.N.A. Act, 1907 (Estimated population, Jan. 1, 1929).....		264,000 00
	By $\frac{1}{2}$ year's allowance for Government and Legislature as authorized by Sec. 1, (1-a) of the B.N.A. Act, 1907.....		95,000 00
	By $\frac{1}{2}$ year's allowance as authorized by 2 Geo. V, Cap. 32, Sec. 5, SS. 1, in lieu of public lands on a population between 400,000 and 800,000. ($\frac{1}{2}$ of \$562,500).....	\$ 281,250 00	
	Less $\frac{1}{2}$ year's swamp lands deduction of 5 per cent on \$2,769,856.66.....	\$69,246 41	
	Less $\frac{1}{2}$ year's University Lands deduction of 5 per cent on \$300,000.00.....	7,500 00	
		76,746 41	
	By $\frac{1}{2}$ year's interest at 5% per annum on \$7,631,683.85 in lieu of debt as authorized by 2 Geo. V, Cap. 32, Sec. 4.....		204,503 59
	To cash.....	754,295 68	190,792 09
July 3.....			
1930			
Jan. 1.....	By $\frac{1}{2}$ year's grants and allowances as above.....	754,295 68	754,295 68
Jan. 2.....	To cash.....		
		1,508,591 36	1,508,591 36

No. 4.—PROVINCE OF NEW BRUNSWICK—Subsidy Account

Date		Dr.	Cr.
		\$ cts.	\$ cts.
1929			
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 387,876 (Census 1921) as authorized by Sec. 1 (1-b) of the B.N.A. Act, 1907.....		155,150 40
	By $\frac{1}{2}$ year's grant for Government and Legislature as authorized by Section 1, (1-a) of the B.N.A. Act, 1907.....		90,000 00
	By $\frac{1}{2}$ year's allowance in lieu of export duty on lumber as authorized by 36 Vic., Cap. 41, Sec. 1.....		75,000 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$529,299.39.....		13,232 48
July 3.....	To cash.....	333,382 88	
1930			
Jan. 1.....	By $\frac{1}{2}$ year's grants and allowances as above.....	333,382 88	333,382 88
Jan. 2.....	To cash.....		
		666,765 76	666,765 76

DEPARTMENT OF FINANCE

Appendix No. 41—Continued

No. 5.—PROVINCE OF NOVA SCOTIA—Subsidy Account

Date	—	Dr.	Cr.
1929		\$ cts.	\$ cts.
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 523,837 (Census 1921), as authorized by Sec. 1 (1-b) of the B.N.A. Act, 1907.....		209,534 80
	By $\frac{1}{2}$ year's grant for Government and Legislature as authorized by Section 1, (1-a), of the B.N.A. Act, 1907.....		95,000 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$1,055,433.64.....		26,385 84
July 3.....	To cash.....	330,920 64	
1930			330,920 64
Jan. 1.....	By $\frac{1}{2}$ year's grants and allowance as above.....	330,920 64	
Jan. 2.....	To cash.....		
		661,841 28	661,841 28

No. 6.—PROVINCE OF ONTARIO—Subsidy Account

Date	—	Dr.	Cr.
1929		\$ cts.	\$ cts.
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, on a population of 2,933,662 (Census 1921) as authorized by Section 1 (1-b) of the B.N.A. Act, 1907— 2,500,000 at 80 cents per head per annum...1,000,000 00 433,662 at 60 cents per head per annum... 130,098 60		1,130,098 60
	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature as authorized by Sec. 1 (1-a) of the B.N.A. Act, 1907.....		120,000 00
	By $\frac{1}{2}$ year's allowance as authorized by 47 Vic., Cap. 4, of 1884.....		71,207 24
July 3.....	To Cash.....	1,321,305 84	
1930			1,321,305 84
Jan. 1.....	By $\frac{1}{2}$ year's grants and allowance as above.....	1,321,305 84	
Jan. 2.....	To Cash.....		
		2,642,611 68	2,642,611 68

Appendix No. 41—Continued

No. 7.—PROVINCE OF PRINCE EDWARD ISLAND—Subsidy Account

Date		Dr.	Cr.
		\$ cts.	\$ cts.
1929			
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 109,078 (Census 1891), as authorized by Section 1 (1-b) and 1 (8) of the B.N.A. Act of 1907.....		43,631 20
	By $\frac{1}{2}$ year's grant for Government and Legislature as authorized by Sec. 1, (1-a), of the B.N.A. Act, 1907.....		50,000 00
	By $\frac{1}{2}$ year's grant in lieu of Public Lands, O.C. Windsor, June 26, 1873.....		
	Less $\frac{1}{2}$ year's deduction on Land Account Balance, being 5% per annum on \$782,402.33, as authorized by O.C. Windsor, June 26, 1873... 19,560 05		2,939 95
	By $\frac{1}{2}$ year's additional allowance on subsidy account as authorized by 50-51 Vic., cap. 8, section 1.....		10,000 00
	By $\frac{1}{2}$ year's allowance as authorized by 1 Ed. VII, Cap. 3, Sec. 1 in settlement of Steamships Service Claim.....		15,000 00
	By $\frac{1}{2}$ year's grant as authorized by 2 Geo. V, Sec. 2.....		50,000 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$775,791.83.....		19,394 79
July 3.....	To Prince Edward Island Railway for $\frac{1}{2}$ year's interest on construction and maintenance of the Hillsboro River Bridge on the Murray Harbour Branch, as authorized by 63-64 Vic., Cap. 7.....	4,875 00	
	To Cash.....	186,090 94	
1930			
Jan. 1.....	By grants and allowances as above.....		190,965 94
Jan. 2.....	To deductions as above.....	4,875 00	
	To Cash.....	186,090 94	
		381,931 88	381,931 88

No. 8—PROVINCE OF QUEBEC—Subsidy Account

Date		Dr.	Cr.
		\$ cts.	\$ cts.
1929			
July 1.....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 2,361,199 (Census 1921), as authorized by Sec. 1 (1-b) of the B.N.A. Act of 1907.....		944,479 60
	By $\frac{1}{2}$ year's grant for its Government and Legislature as authorized by Section 1 (1-a) of the B.N.A. Act, 1907.....		120,000 00
	By $\frac{1}{2}$ year's allowance as authorized by 47 Vic., Cap. 4, of 1884.....		63,730 34
July 3.....	To Cash.....	1,128,209 94	
1930			
Jan. 1.....	By $\frac{1}{2}$ year's grants and allowance as above.....		1,128,209 94
Jan. 2.....	To Cash.....	1,128,209 94	
		2,256,419 88	2,256,419 88

Appendix No. 41—Concluded

No. 9.—PROVINCE OF SASKATCHEWAN—Subsidy Account

Date	—	Dr.	Cr.
1929		\$ cts.	\$ cts.
July 1....	By $\frac{1}{2}$ year's grant for its local purposes and the support of its Government and Legislature, at the rate of 80 cents per head per annum on a population of 859,900 as authorized by Section 1 (1-b) of the B.N.A. Act 1907. (Estimated population Jan. 1, 1929).....		343,960 00
	By $\frac{1}{2}$ year's allowance for Government and Legislature as authorized by Section 1 (1-a) of the B.N.A. Act, 1907.....		110,000 00
July 3....	To Cash.....	453,960 00	
Sept. 1....	By $\frac{1}{2}$ year's allowance in lieu of Public Lands (Quinquennial Census, July 1, 1926) population between 800,000 and 1,200,000 as authorized by 4-5 Edw. VII, Cap. 42 (1905), Sec. 20.....		375,000 00
	By $\frac{1}{2}$ year's interest at 5% per annum on debt allowance of \$8,107,500.00.....		202,687 50
	To cash.....	577,687 50	
1930			
Jan. 1....	By $\frac{1}{2}$ year's grant and allowance as above.....		453,960 00
Jan. 2....	To cash.....	453,960 00	
Mar. 1....	By $\frac{1}{2}$ year's allowances as above.....		577,687 50
	To cash.....	577,687 50	
		2,063,295 00	2,063,295 00

SUBSIDY Allowances from July, 1867, to close of the fiscal year ended March 31, 1930

Province	Allowances for Government	Allowances per head of population	Special Grants	Interest on Debt Allowances	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Alberta.....	4,396,666 67	9,663,072 67	12,843,750 00	10,134,375 00	37,037,864 34
British Columbia.....	5,370,000 00	10,091,470 40	6,900,000 00	1,729,696 38	24,091,166 78
Manitoba.....	5,975,000 00	14,529,107 20	12,827,697 96	11,824,282 93	45,156,088 09
New Brunswick.....	6,140,000 00	16,488,049 60	9,180,000 00	1,291,775 16	33,099,824 76
Nova Scotia.....	6,770,000 00	21,662,109 60	826,980 00	2,971,624 95	32,230,714 55
Ontario.....	8,720,000 00	92,141,761 19		4,316,446 22	105,178,207 41
Prince Edward Island.....	3,320,000 00	4,876,392 00	4,040,784 84	2,408,897 49	14,646,074 33
Quebec.....	8,320,000 00	73,868,914 40		4,686,949 49	86,875,863 89
Saskatchewan.....	4,616,666 67	12,387,323 60	14,156,250 00	10,134,375 00	41,294,615 27
	53,628,333 34	255,708,200 66	60,775,462 80	49,498,422 62	419,610,419 42



REPORT
OF THE
DEPARTMENT OF
NATIONAL REVENUE

CONTAINING
ACCOUNTS OF REVENUE

With Statements relative to the Imports, Exports, Excise
and Income

OF THE
DOMINION OF CANADA

FOR THE FISCAL YEAR ENDED MARCH 31

1930

COMPILED FROM OFFICIAL RETURNS



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I., G.C.M.G.,
etc., etc., Governor General and Commander in Chief of the Dominion of
Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of National Revenue containing Tables and Statements relative to the Imports, Exports, Excise and Income of the Dominion of Canada, for the fiscal year ended March 31, 1930, as compiled from official returns.

All of which is respectfully submitted.

E. B. RYCKMAN,
Minister of National Revenue.

OTTAWA, October 30, 1930.

Hon. E. B. RYCKMAN, P.C., K.C., M.P.,
Minister of National Revenue.

SIR,—I have the honour to hand you the Annual Report of the Department of National Revenue (Customs Division), containing Accounts of Revenue with statements of Imports and Exports of the Dominion of Canada for the fiscal year ended March 31, 1930.

Your obedient servant,

R. W. BREADNER,
Commissioner of Customs.

OTTAWA, October 25, 1930.

PREFACE

The Customs Act contains the following provisions respecting the Annual Report of the Department of Customs:—

“305. The Minister shall annually make to the Governor General, to be laid before Parliament within fifteen days after the meeting thereof, a report and statement of the transactions and affairs of the department during the year then next preceding.”

The Inland Revenue Act also contains provisions respecting the Annual Report of the Inland Revenue Service as follows:—

“14. The Minister shall annually make to the Governor General a report and statement of the transactions and affairs of the Department during the year then next preceding, which shall be laid before Parliament within fifteen days after the next meeting thereof.”

The unrevised monthly statements of imports and exports, prepared and published under the direction of the Department of Customs from July 1, 1900, ceased to be published by this Department since March, 1918.

Detailed statements, however, showing the quantity, value, and origin of imports and the quantity, value, and destination of exports, continue to be prepared and furnished monthly by the Department of Customs from April 1, 1918, for publication by the Dominion Bureau of Statistics.

Trade statistics classified by countries, with other details, compiled from Customs returns, are now published by the Dominion Bureau of Statistics.

Part I of this report contains tables and statements relative to the Customs.

Part II of this report contains tables and statements relative to Excise.

Part III of this report contains tables relative to Income Taxes.

The difference between revenue totals in Statement Number 9, Part I and totals shown in other statements of revenue, represent the differences between actual cash received in the Department and remitted to the Receiver General, and totals shown on entries passed, and are adjusted in the next fiscal year.

PART I

CUSTOMS

TABLES AND STATEMENTS OF
IMPORTS AND EXPORTS

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No. 1—STATEMENT showing the Value of Total Exports and Imports entered for Home Consumption in the Dominion, with the duty collected thereon, for the undermentioned years.

	Total Exports	Total Imports entered for Home Consumption	Grand Total Imports entered for Home Consumption and Exports	Total Duty Collected
	\$	\$	\$	\$
Fiscal year ended June 30, 1868.....	57,567,888	71,985,306	129,553,194	8,819,431 63
" " 1869.....	60,474,781	67,402,170	127,876,951	8,298,909 71
" " 1870.....	73,573,490	71,237,603	144,811,093	9,462,940 44
" " 1871.....	74,173,618	86,947,482	161,121,100	11,843,655 75
" " 1872.....	82,639,663	107,709,116	190,348,779	13,045,493 50
" " 1873.....	89,789,922	127,514,594	217,304,516	13,017,730 17
" " 1874.....	89,351,928	127,404,169	216,756,097	14,421,882 67
" " 1875.....	77,886,979	119,618,657	197,505,636	15,361,382 12
" " 1876.....	80,966,435	94,733,218	175,699,653	12,833,114 48
" " 1877.....	75,875,393	96,300,483	172,175,876	12,548,451 09
" " 1878.....	79,323,667	91,199,577	170,523,244	12,795,693 17
" " 1879.....	71,491,255	80,341,608	151,832,863	12,939,540 66
" " 1880.....	87,911,458	71,782,349	159,693,897	14,138,849 22
" " 1881.....	98,290,823	91,611,604	189,902,427	18,500,785 97
" " 1882.....	102,137,203	112,648,927	214,786,130	21,708,837 43
" " 1883.....	98,085,804	123,137,019	221,222,823	23,172,308 97
" " 1884.....	91,406,496	108,180,644	199,587,140	20,164,963 37
" " 1885.....	89,238,361	102,710,019	191,948,380	19,133,558 99
" " 1886.....	85,251,314	99,602,694	184,854,008	19,448,123 70
" " 1887.....	89,515,811	105,639,428	195,155,239	22,469,705 83
" " 1888.....	90,203,000	102,847,100	193,050,100	22,209,641 53
" " 1889.....	89,189,167	109,673,447	198,862,614	23,784,523 23
" " 1890.....	96,749,149	112,765,584	209,514,733	24,014,908 07
" " 1891.....	98,417,296	113,345,124	211,762,420	23,481,069 13
" " 1892.....	113,963,372	116,978,943	230,942,318	20,550,581 53
" " 1893.....	118,564,352	121,705,030	240,269,382	21,161,710 93
" " 1894.....	117,524,949	113,093,983	230,618,932	19,379,822 32
" " 1895.....	113,638,803	105,252,511	218,891,314	17,887,269 47
" " 1896.....	121,013,852	110,587,480	231,601,332	20,219,037 32
" " 1897.....	137,950,253	111,294,021	249,244,274	19,891,996 77
" " 1898.....	164,152,683	130,698,006	294,850,689	22,157,788 49
" " 1899.....	158,896,905	154,051,593	312,948,498	25,794,228 75
" " 1900.....	191,894,723	180,804,316	372,699,039	28,889,110 13
" " 1901.....	196,487,632	181,237,988	377,725,620	29,106,979 89
" " 1902.....	211,640,286	202,791,595	414,431,881	32,425,532 31
" " 1903.....	225,849,724	233,790,516	459,640,240	37,110,354 59
" " 1904.....	213,521,235	251,464,332	464,985,567	40,954,349 14
" " 1905.....	203,316,872	261,925,554	465,242,426	42,024,339 92
" " 1906.....	256,586,630	290,360,807	546,947,437	46,671,101 18
" " Mar. 31, *1907.....	205,277,197	257,254,882	462,532,079	40,290,171 70
" " 1908.....	280,006,606	358,428,616	638,435,222	58,331,074 04
" " 1909.....	261,512,159	298,205,957	559,718,116	48,059,791 93
" " 1910.....	301,358,529	375,833,016	677,191,545	61,024,239 21
" " 1911.....	297,196,365	461,951,318	759,147,688	73,312,367 59
" " 1912.....	315,317,250	547,482,190	862,799,440	87,576,036 52
" " 1913.....	393,232,057	675,517,045	1,068,749,102	115,063,687 39
" " 1914.....	478,997,928	633,692,449	1,112,690,377	107,180,578 33
" " 1915.....	490,808,877	587,439,304	1,078,248,181	79,205,910 27
" " 1916.....	882,872,502	542,077,361	1,424,949,863	103,940,100 86
" " 1917.....	1,375,758,148	873,437,426	2,249,195,574	147,631,454 93
" " 1918.....	1,586,169,792	962,543,746	2,548,713,538	161,595,628 51
" " 1919.....	1,268,765,285	916,429,335	2,185,194,620	158,046,333 87
" " 1920.....	1,286,658,709	1,064,528,123	2,351,186,832	187,524,181 77
" " 1921.....	1,210,428,119	1,240,158,882	2,450,587,001	179,667,683 12
" " 1922.....	753,927,009	747,804,332	1,501,731,341	121,487,393 90
" " 1923.....	945,295,837	802,579,244	1,747,875,081	133,803,370 12
" " 1924.....	1,058,763,297	893,366,867	1,952,130,164	135,122,344 76
" " 1925.....	1,081,361,643	796,932,537	1,878,294,180	120,122,453 70
" " 1926.....	1,328,700,137	927,328,732	2,256,028,869	143,933,110 07
" " 1927.....	1,267,573,142	1,030,892,505	2,298,465,647	158,966,367 03
" " 1928.....	1,250,598,034	1,108,956,466	2,359,412,763	171,872,768 00
" " 1929.....	1,388,896,075	1,265,679,091	2,654,575,166	200,479,505 46
" " 1930.....	1,144,938,070	1,248,273,582	2,393,211,652	199,011,628 32

* 9 months, change of fiscal year.

No. 2—STATEMENT showing Aggregate Trade of the Dominion by Countries on the basis of Goods entered for Home Consumption and Exported.

Fiscal Year	United Kingdom	United States	France	Germany	Spain	Portugal	Italy	Netherlands
	\$	\$	\$	\$	\$	\$	\$	\$
1873.....	107,266,624	89,808,204	2,055,195	1,176,478	502,966	266,188	229,657	229,770
1874.....	108,083,642	90,524,060	2,569,712	1,022,428	459,027	294,007	236,296	271,043
1875.....	100,379,969	80,717,803	2,154,065	839,442	390,784	236,790	214,366	260,503
1876.....	81,457,737	78,003,492	2,394,812	608,355	445,151	199,195	183,199	297,895
1877.....	81,139,708	77,087,914	1,730,062	404,918	340,757	175,425	242,942	296,860
1878.....	83,372,719	73,876,437	1,754,394	521,580	325,245	145,941	205,171	266,764
1879.....	67,288,848	70,904,720	2,247,066	552,999	394,445	161,258	181,933	210,288
1880.....	80,307,286	62,696,857	1,928,670	532,028	297,245	201,652	623,295	273,837
1881.....	97,335,378	73,570,337	2,294,043	1,019,198	446,337	165,487	234,723	440,944
1882.....	95,871,802	96,229,763	2,922,931	1,633,118	570,301	201,656	256,841	613,241
1883.....	99,197,682	97,701,056	2,934,210	1,942,851	749,897	243,192	322,554	324,800
1884.....	87,154,242	89,333,366	2,160,804	2,171,346	648,569	240,235	322,499	333,977
1885.....	83,284,482	86,903,935	2,239,890	2,385,344	481,910	227,096	255,712	361,879
1886.....	82,143,828	81,436,808	2,509,581	2,408,821	432,540	301,927	215,298	309,559
1887.....	89,534,079	82,767,265	2,415,001	3,672,985	481,289	204,671	245,560	309,920
1888.....	79,383,705	91,053,913	2,642,557	3,563,106	427,249	230,397	235,816	332,169
1889.....	80,422,515	94,059,844	2,562,893	3,836,173	420,794	238,106	186,186	414,302
1890.....	91,743,935	92,814,783	2,894,154	4,286,136	392,294	291,811	244,545	423,309
1891.....	91,328,384	94,824,352	2,565,877	4,336,232	555,197	191,148	322,808	404,532
1892.....	106,254,984	92,125,599	2,770,173	6,526,228	489,652	155,479	490,839	846,167
1893.....	107,228,906	102,144,986	3,096,164	4,567,224	387,861	135,482	661,403	656,427
1894.....	107,256,123	88,844,040	3,081,950	7,887,594	445,567	126,469	511,631	625,764
1895.....	92,988,727	95,932,197	2,920,456	5,421,135	436,580	115,921	415,919	348,164
1896.....	99,670,030	103,022,434	3,392,482	6,688,990	445,592	88,262	287,676	439,680
1897.....	106,639,690	111,022,513	3,292,047	7,538,800	436,984	88,337	333,512	480,531
1898.....	137,499,735	124,410,926	5,000,613	7,421,462	578,462	135,154	495,023	750,486
1899.....	136,151,978	138,140,687	5,447,017	9,613,025	593,660	92,937	520,684	872,941
1900.....	152,526,098	178,463,401	5,743,272	10,699,401	647,157	187,801	405,029	767,781
1901.....	148,347,120	182,867,238	6,979,352	9,162,957	897,893	181,707	642,424	984,840
1902.....	166,533,983	192,004,734	8,061,042	13,515,747	856,793	234,874	963,641	1,195,856
1903.....	190,099,222	209,389,119	7,921,647	14,380,336	962,497	293,376	837,555	1,889,869
1904.....	179,368,950	223,599,447	7,804,453	9,994,827	963,674	210,053	642,891	1,951,398
1905.....	162,301,480	240,142,642	8,570,437	7,842,068	779,482	227,281	819,610	1,505,474
1906.....	202,289,527	273,668,593	9,788,078	8,859,871	984,477	218,202	769,610	2,004,640
*1907.....	169,717,174	234,964,509	8,108,984	6,541,513	934,469	282,622	807,347	1,816,967
1908.....	229,443,627	324,173,325	11,708,641	10,537,654	1,233,571	194,121	1,131,336	2,281,420
1909.....	204,428,319	272,631,127	11,373,531	7,536,917	979,536	171,116	2,382,112	2,515,851
1910.....	244,984,407	336,652,587	12,750,192	10,436,421	1,071,719	200,253	1,722,906	3,947,842
1911.....	246,901,572	404,331,540	14,345,865	12,710,357	1,182,690	274,468	1,341,418	3,217,597
1912.....	268,760,435	476,889,112	13,868,369	14,904,919	1,387,775	329,932	1,431,913	4,206,628
1913.....	316,732,000	608,251,944	17,944,367	17,616,941	1,307,598	392,391	2,319,304	5,851,267
1914.....	354,393,642	611,245,464	18,087,097	19,019,959	1,416,132	332,862	2,745,643	8,524,262
1915.....	301,919,644	644,026,253	23,044,891	7,248,996	1,467,128	1,004,093	3,313,709	7,024,085
1916.....	543,190,036	718,918,685	42,035,283	86,304	1,252,023	264,360	11,653,559	3,621,359
1917.....	877,834,291	1,164,502,306	73,134,008	14,132	1,240,725	469,783	12,655,606	2,804,307
1918.....	942,397,682	1,233,297,045	211,859,127	27,181	907,063	253,298	4,109,492	3,517,575
1919.....	633,874,234	1,224,666,313	105,993,753	75	928,738	479,135	14,585,836	694,394
1920.....	622,319,367	1,302,230,817	72,458,218	700,081	2,649,452	510,409	17,966,261	8,048,082
1921.....	528,202,233	1,416,878,756	46,660,391	9,764,721	7,427,904	1,994,116	59,516,787	24,529,612
1922.....	417,498,536	820,062,373	21,730,443	6,633,097	2,627,903	310,170	16,727,800	13,594,985
1923.....	521,248,669	921,337,459	26,440,012	12,631,288	2,674,986	508,906	13,791,054	15,698,356
1924.....	514,747,492	1,042,899,356	34,701,358	21,677,344	2,461,361	1,275,897	20,352,765	14,885,187
1925.....	548,251,994	936,964,652	28,865,521	31,170,271	1,946,318	337,201	16,075,345	17,877,961
1926.....	672,997,353	1,095,671,872	33,202,810	40,749,955	2,918,397	470,612	15,399,591	30,628,787
1927.....	611,961,399	1,167,002,022	39,295,797	49,638,214	2,763,845	1,744,483	26,267,670	34,139,725
1928.....	598,659,210	1,216,222,493	36,511,564	59,381,143	3,188,118	1,664,489	22,987,220	44,475,273
1929.....	625,702,322	1,389,279,316	42,459,443	67,676,778	8,407,335	6,413,334	27,289,157	53,482,627
1930.....	472,728,062	1,384,130,218	41,851,767	46,973,842	7,287,338	2,093,757	16,354,740	25,447,953

* 9 months.

No. 2—STATEMENT showing Aggregate Trade of the Dominion by Countries on the basis of Goods entered for Home Consumption and Exported—*Concluded.*

Fiscal Year	Belgium	New- foundland	West Indies	South America	China and Japan	Switzer- land	Other Countries	Total
	\$	\$	\$	\$	\$	\$	\$	\$
1873.....	364,456	4,609,552	1,163,425	1,701,633	1,709,856	120,514	1,099,998	217,304,516
1874.....	534,153	2,657,547	6,086,529	1,686,508	1,263,728	139,674	927,743	216,756,097
1875.....	337,674	2,806,055	6,139,910	1,064,593	694,472	116,128	1,153,082	197,505,636
1876.....	374,880	2,675,477	5,291,433	975,762	971,314	56,168	1,764,483	175,699,653
1877.....	318,724	2,753,748	5,031,667	656,591	455,755	69,066	1,471,734	172,175,876
1878.....	805,692	2,767,347	4,397,996	669,804	486,244	61,178	1,366,532	170,523,244
1879.....	219,461	2,280,823	4,753,099	745,830	505,513	94,781	1,291,709	151,832,863
1880.....	837,897	2,002,261	6,489,257	1,073,421	931,457	94,225	1,314,429	159,693,807
1881.....	671,267	2,175,773	6,962,516	1,369,731	1,430,734	141,789	1,644,170	189,902,420
1882.....	645,568	2,468,432	7,018,956	2,314,779	1,635,717	268,093	2,134,932	214,786,133
1883.....	611,112	2,953,273	7,494,291	2,954,628	1,750,642	336,040	1,706,595	221,222,820
1884.....	746,528	2,701,120	6,726,480	2,756,371	1,970,541	242,380	2,078,676	199,587,140
1885.....	551,645	2,022,073	5,698,057	2,802,042	2,528,369	217,666	1,989,280	191,948,388
1886.....	517,472	2,139,301	5,266,042	2,111,029	2,495,703	203,085	2,363,014	184,854,009
1887.....	927,580	2,072,946	4,017,593	2,625,066	2,819,584	219,777	2,841,913	195,155,200
1888.....	505,800	1,945,426	5,870,149	2,487,240	2,261,155	194,938	2,016,480	193,050,143
1889.....	595,496	1,791,496	6,138,109	2,813,587	2,048,712	166,905	3,167,496	198,862,817
1890.....	763,146	1,655,400	5,808,189	2,555,849	2,161,816	316,923	3,162,393	209,514,733
1891.....	728,120	2,218,911	6,360,926	1,782,950	2,202,102	244,319	3,685,842	211,762,420
1892.....	573,244	2,503,963	7,638,846	1,905,346	3,300,108	193,033	5,168,657	230,942,318
1893.....	1,268,551	3,247,903	7,390,377	2,099,356	2,766,712	258,464	4,465,666	240,269,382
1894.....	1,258,692	3,633,154	7,121,172	2,644,677	3,065,768	276,065	4,220,266	230,618,932
1895.....	693,019	3,065,046	8,681,622	1,610,470	2,906,574	260,040	3,059,444	218,891,312
1896.....	1,018,789	2,353,721	4,707,243	2,063,145	3,339,429	332,405	3,771,454	231,601,334
1897.....	1,518,218	2,144,874	4,332,230	2,026,085	3,300,331	223,192	5,882,830	249,244,274
1898.....	2,204,054	2,632,184	3,829,346	2,505,195	2,829,890	357,003	4,201,156	294,850,689
1899.....	3,168,136	2,335,323	4,398,902	2,631,635	3,194,829	571,526	5,215,018	312,948,498
1900.....	4,421,716	2,804,748	4,202,119	2,423,994	2,749,759	529,976	6,726,187	372,699,039
1901.....	6,634,592	2,886,067	4,707,677	2,567,278	3,149,591	603,397	7,113,487	377,725,620
1902.....	4,156,049	3,498,482	5,472,747	3,440,987	2,555,466	780,183	11,161,301	414,431,881
1903.....	4,950,732	3,714,157	6,021,294	4,532,008	2,440,999	952,326	11,255,103	459,640,240
1904.....	4,255,930	3,975,418	8,397,290	5,613,612	3,134,959	1,392,895	13,679,770	464,985,567
1905.....	3,514,994	4,528,326	10,039,302	6,916,171	3,990,776	1,776,405	12,288,038	465,242,426
1906.....	4,175,238	4,972,281	9,944,179	9,425,735	3,684,769	2,042,635	14,119,602	546,947,437
*1907.....	3,553,137	3,708,200	6,935,876	8,814,147	3,001,144	1,609,063	11,736,927	462,532,079
1908.....	5,758,128	5,185,987	12,844,390	7,555,644	4,611,199	2,752,443	19,023,736	638,425,222
1909.....	5,829,033	5,190,721	12,626,749	8,262,369	4,405,402	2,195,342	19,189,991	559,718,116
1910.....	6,139,980	5,438,571	13,284,809	10,961,629	4,892,218	2,614,038	22,093,973	677,191,545
1911.....	6,387,798	5,693,035	15,603,170	12,482,760	4,255,948	3,125,583	27,293,881	759,147,683
1912.....	7,418,641	6,126,200	13,931,818	15,363,540	4,015,357	3,477,524	29,227,277	862,799,440
1913.....	8,829,175	6,785,116	16,814,434	14,881,135	6,137,859	4,312,054	40,573,517	1,068,749,102
1914.....	9,130,319	6,611,551	18,501,695	13,046,555	5,579,724	4,361,520	39,513,952	1,112,690,377
1915.....	5,135,322	5,726,336	17,507,373	11,708,498	5,159,252	3,995,701	39,966,900	1,078,248,181
1916.....	394,077	6,648,822	18,281,199	17,855,782	6,468,457	4,504,220	49,775,697	1,424,949,863
1917.....	679,618	9,018,908	27,937,171	18,916,441	10,951,591	5,172,711	43,823,976	2,249,195,574
1918.....	4,922,426	13,436,848	30,173,497	17,428,096	20,925,452	3,154,564	62,294,192	2,548,713,538
1919.....	956,588	15,013,986	33,007,398	28,412,651	30,977,454	1,788,682	93,815,383	2,185,194,620
1920.....	29,510,511	19,087,010	60,814,206	33,687,146	29,444,096	9,248,533	142,512,643	2,351,186,832
1921.....	44,966,473	20,219,013	74,880,574	37,143,190	24,648,491	15,594,889	138,159,851	2,450,587,001
1922.....	16,264,969	11,018,036	40,942,973	26,608,212	26,389,501	9,039,392	72,212,951	1,501,731,341
1923.....	17,589,177	10,155,129	46,243,954	26,729,610	28,476,204	8,272,283	96,077,994	1,747,875,081
1924.....	22,817,813	12,450,910	53,059,499	32,313,659	49,118,675	9,729,609	119,639,239	1,952,130,164
1925.....	21,730,493	14,686,371	47,037,745	40,443,339	39,412,647	8,570,661	124,923,661	1,878,294,180
1926.....	29,846,437	13,270,802	53,352,616	44,164,607	71,294,341	8,694,925	143,365,764	2,256,028,869
1927.....	31,064,887	13,462,298	52,666,531	52,471,351	59,679,059	10,104,064	146,204,302	2,298,554,500
1928.....	30,804,446	14,208,880	50,205,577	58,672,057	61,499,218	9,116,576	151,958,236	2,359,412,763
1929.....	39,465,602	14,075,861	42,001,040	58,007,919	82,369,858	8,477,905	189,466,669	2,654,575,166
1930.....	34,823,288	15,029,070	43,467,573	65,683,007	62,545,717	8,541,162	166,704,158	2,393,211,652

*9 months.

No. 3—STATEMENT showing Value of Exports by Countries

Fiscal Year	United Kingdom	United States	France	Germany	Spain	Portugal	Italy	Netherlands
	\$	\$	\$	\$	\$	\$	\$	\$
1873.....	38,743,848	42,072,526	31,907	76,553	25,080	191,156	177,232	13,142
1874.....	45,003,882	36,244,311	267,212	65,511	960	193,463	190,211	14,905
1875.....	40,032,902	29,911,983	212,767	91,019	7,300	170,784	170,408	28,724
1876.....	40,723,477	31,933,459	553,935	125,768	9,417	127,540	142,787	30,816
1877.....	41,567,469	25,775,245	319,330	34,324	62,659	129,960	213,692	94,303
1878.....	45,941,539	25,244,898	369,391	122,254	47,816	104,028	151,861	53,750
1879.....	36,295,718	27,165,501	714,875	112,090	50,596	135,748	148,472	9,713
1880.....	45,846,062	33,349,909	812,829	82,237	60,727	165,885	163,787	102,592
1881.....	53,571,570	36,866,225	662,711	84,932	46,653	108,594	145,997	215,754
1882.....	45,274,461	47,910,711	825,573	153,114	108,082	149,744	163,755	365,198
1883.....	47,145,217	41,668,723	617,730	133,697	164,925	179,843	218,113	27,599
1884.....	43,736,227	38,840,540	390,955	195,575	144,092	172,252	247,151	15,500
1885.....	41,877,705	39,752,734	303,309	264,075	132,695	166,730	147,550	24,094
1886.....	41,542,629	36,578,769	534,363	253,298	53,075	245,450	108,601	7,587
1887.....	44,571,846	37,660,199	341,531	437,536	72,020	146,528	125,681	14,859
1888.....	40,084,984	42,572,065	397,773	198,543	52,317	155,821	55,090	378
1889.....	38,105,126	43,522,404	334,210	143,603	13,526	166,021	60,062	1,222
1890.....	48,353,694	40,522,810	278,552	507,143	69,788	207,777	81,059	1,042
1891.....	49,280,858	41,138,695	253,734	532,142	67,110	120,611	90,999	14,741
1892.....	64,906,549	38,988,027	367,539	942,698	93,476	102,370	149,280	567,879
1893.....	64,080,493	43,923,010	264,047	750,461	44,355	83,001	87,387	282,569
1894.....	68,538,856	35,809,940	544,986	2,046,052	56,274	79,363	109,188	281,058
1895.....	61,856,990	41,297,676	335,282	620,976	34,101	58,781	34,325	140,264
1896.....	66,690,288	44,448,410	581,540	757,531	83,814	41,666	56,759	139,828
1897.....	77,227,502	49,373,472	690,696	2,045,432	50,452	36,745	108,627	104,422
1898.....	104,998,818	45,705,336	1,025,262	2,837,448	89,675	87,835	73,765	376,439
1899.....	99,091,855	45,133,521	1,557,722	2,219,569	59,178	29,641	125,265	372,548
1900.....	107,736,368	68,619,023	1,374,770	1,715,903	86,456	115,016	260,456	188,199
1901.....	105,328,956	72,382,230	1,581,331	1,141,552	155,354	85,403	315,063	187,378
1902.....	117,320,221	71,197,684	1,388,848	1,692,578	161,823	105,495	236,899	320,241
1903.....	131,202,321	71,783,924	1,341,618	2,097,699	138,553	164,184	295,770	619,329
1904.....	117,591,376	72,772,932	1,597,928	1,819,223	98,578	109,340	240,963	1,035,327
1905.....	101,958,771	77,404,071	1,511,298	1,146,654	50,223	128,993	198,973	550,821
1906.....	133,094,937	97,806,552	2,120,091	1,872,557	55,686	89,598	215,855	824,768
*1907.....	105,135,801	79,021,480	1,409,572	1,006,605	48,315	154,438	352,842	814,977
1908.....	134,484,156	113,520,500	1,806,732	2,374,607	106,594	46,865	349,839	855,085
1909.....	133,745,375	92,604,357	3,176,096	1,476,552	45,682	48,833	1,620,773	1,242,730
1910.....	149,634,107	113,150,778	2,640,648	2,501,191	51,944	59,731	829,508	1,937,852
1911.....	136,965,111	119,396,801	2,782,092	2,663,017	27,943	88,088	379,270	1,397,019
1912.....	151,853,413	120,534,634	2,123,705	3,814,914	114,564	70,390	285,091	1,782,726
1913.....	177,982,002	167,110,382	2,564,603	3,402,394	48,628	49,142	605,719	2,741,713
1914.....	222,322,766	200,459,373	3,810,562	4,433,736	63,999	55,481	655,256	5,508,806
1915.....	211,758,863	215,409,326	14,595,705	2,162,010	489,680	788,485	1,840,910	5,254,829
1916.....	463,081,241	320,225,080	36,085,813	.....	634,998	56,726	10,733,288	2,563,626
1917.....	756,071,077	486,870,690	66,652,910	.....	331,179	209,689	11,468,599	1,569,314
1918.....	861,073,399	441,390,920	206,585,063	.....	98,256	14,878	3,338,305	2,463,309
1919.....	560,839,116	477,745,659	102,360,853	.....	213,095	367,446	14,030,724	198,985
1920.....	495,960,118	501,130,117	61,827,353	655,826	1,108,904	197,497	16,967,221	5,781,913
1921.....	314,228,671	560,701,936	27,522,329	8,217,036	5,110,725	1,476,894	57,771,457	20,291,821
1922.....	300,363,193	304,104,177	8,248,438	4,592,081	848,495	87,664	15,340,430	9,592,938
1923.....	379,918,526	380,347,721	14,175,091	10,062,879	978,076	384,878	12,189,829	10,727,688
1924.....	361,160,802	441,642,909	18,933,507	16,294,838	794,792	1,015,496	18,502,921	9,525,207
1925.....	397,168,048	427,184,643	10,404,896	24,382,660	178,096	9,413	14,144,853	12,795,119
1926.....	509,266,143	485,952,235	14,051,111	30,763,192	832,547	121,795	12,801,832	23,764,224
1927.....	448,022,334	479,331,980	15,303,475	34,608,076	543,022	1,273,457	22,823,608	26,446,057
1928.....	412,763,353	496,786,256	10,037,832	42,325,345	615,968	942,210	18,745,418	35,681,224
1929.....	431,660,941	521,267,087	16,243,747	46,879,095	5,704,260	5,735,304	23,028,832	44,465,864
1930.....	283,098,324	536,688,181	16,693,560	25,468,414	4,503,279	1,410,643	11,391,046	16,015,345

* 9 months.

No. 3—STATEMENT showing the Value of Exports by Countries—Concluded

Fiscal Year	Belgium	New- foundland	West Indies	South America	China and Japan	Australia	Other Countries	Total
	\$	\$	\$	\$	\$	\$	\$	\$
1873	17,754	2,800,555	3,988,493	1,285,434	46,466	41,822	277,954	89,789,922
1874	240,494	1,569,079	3,778,796	1,212,978	39,222	98,733	432,171	89,351,928
1875	59,563	1,901,831	3,945,506	785,797	37,046	181,938	349,411	77,886,979
1876	13,825	1,900,891	3,675,320	688,209	23,075	79,643	938,273	80,966,435
1877	66,912	2,112,106	3,788,858	651,625	37,149	185,610	836,151	75,875,393
1878	49,998	2,094,682	3,414,147	654,357	102,568	370,723	651,655	79,323,667
1879	40,430	1,641,417	3,500,670	741,442	56,551	290,762	587,270	71,491,255
1880	688,811	1,510,300	3,544,103	789,940	37,546	139,901	616,829	87,911,453
1881	258,433	1,523,469	3,147,369	732,111	19,761	146,363	580,881	98,290,828
1882	142,358	1,974,923	2,995,572	941,162	106,675	340,608	655,267	102,137,203
1883	195,705	2,187,338	3,125,031	1,489,957	105,388	375,065	451,473	98,085,804
1884	287,378	1,920,450	3,119,569	1,277,383	60,979	502,181	496,264	91,406,496
1885	72,385	1,670,968	2,535,283	1,461,206	29,918	415,887	383,822	89,238,361
1886	6,565	1,754,980	2,121,570	1,010,034	63,118	299,960	711,315	85,251,314
1887	223,729	1,718,604	2,075,411	1,426,660	69,196	269,471	362,540	89,515,811
1888	17,057	1,523,827	2,601,486	1,510,637	132,448	446,019	454,555	90,203,000
1889	64,756	1,303,335	2,759,455	1,488,999	84,174	661,208	481,051	89,189,167
1890	41,814	1,185,739	2,719,141	1,551,887	61,751	471,028	695,924	96,749,149
1891	72,672	1,467,908	3,122,770	1,063,172	78,791	589,100	523,993	98,417,296
1892	56,212	1,750,714	3,546,559	1,027,525	283,251	436,603	744,693	113,963,375
1893	669,040	2,594,633	3,145,708	1,326,743	341,140	288,352	683,413	118,564,352
1894	708,455	2,818,592	3,443,761	1,392,285	540,849	322,745	832,545	117,245,949
1895	251,402	2,325,196	3,725,426	1,303,474	378,160	417,124	853,626	113,638,803
1896	98,031	1,782,309	2,810,817	1,496,118	668,011	517,258	841,472	121,013,852
1897	354,584	1,692,798	2,643,360	1,405,359	903,922	1,418,289	894,593	137,950,253
1898	973,944	2,167,860	2,749,080	1,060,420	511,919	1,630,714	864,168	164,152,683
1899	849,413	1,808,317	3,043,963	1,456,051	425,350	1,506,138	1,218,374	158,896,905
1900	1,197,798	2,144,070	2,870,343	1,431,107	368,615	1,626,441	2,160,158	191,894,723
1901	2,806,142	2,260,499	2,905,937	1,519,190	699,569	2,311,405	1,807,623	196,487,632
1902	2,444,550	2,381,082	3,298,912	1,781,913	570,586	2,586,554	5,153,000	225,849,724
1903	2,150,505	2,516,576	3,642,176	2,542,056	501,057	2,929,861	3,924,050	225,849,724
1904	1,126,417	2,898,751	3,583,475	2,456,608	568,983	2,622,756	4,898,578	213,521,235
1905	1,739,807	3,473,713	4,401,115	2,880,552	1,520,053	2,194,223	4,157,605	203,316,872
1906	1,565,166	3,213,856	4,505,212	3,623,065	1,467,252	2,082,219	3,979,816	256,586,630
*1907	1,857,958	2,244,469	3,527,153	3,584,329	890,425	1,998,968	3,169,865	205,277,197
1908	3,377,479	3,408,518	4,543,889	4,467,584	1,705,901	2,873,461	6,085,396	280,006,606
1909	3,927,445	3,552,293	4,534,446	4,478,476	1,778,666	2,769,049	7,511,386	261,512,159
1910	2,900,092	3,970,952	4,848,245	4,744,524	1,910,724	3,583,447	7,494,786	301,358,529
1911	2,773,444	3,874,775	6,567,307	5,149,771	1,149,810	3,925,592	10,056,325	297,196,365
1912	3,732,222	4,284,313	6,900,940	4,825,030	902,375	3,947,015	10,145,918	315,317,250
1913	4,808,997	4,728,142	6,237,468	4,352,278	1,881,558	3,996,387	12,722,644	393,232,057
1914	4,819,843	4,770,200	6,997,711	4,026,398	2,062,246	4,705,822	14,305,729	478,997,928
1915	3,259,359	4,481,176	6,418,479	2,114,370	1,333,404	5,552,686	15,349,595	490,808,877
1916	334,762	5,071,038	6,403,078	5,125,374	1,534,722	7,773,209	23,249,547	882,872,502
1917	664,722	6,871,100	9,192,467	5,609,604	1,700,514	6,576,725	21,969,558	1,375,758,148
1918	4,909,453	10,489,321	11,921,116	5,159,709	7,333,243	8,676,257	22,716,473	1,586,169,792
1919	950,318	11,915,152	16,706,634	14,975,550	15,404,866	14,172,817	38,866,070	1,268,765,285
1920	28,599,104	16,940,596	20,274,469	14,589,853	14,601,580	11,538,966	96,485,192	1,286,658,709
1921	40,273,105	17,332,810	21,562,715	17,786,847	11,390,321	18,171,685	88,589,767	1,210,428,119
1922	12,419,251	9,626,010	15,677,062	8,884,181	16,781,293	10,687,484	36,674,312	753,927,009
1923	12,594,390	8,756,403	16,416,128	10,622,959	19,804,493	18,818,681	49,498,095	945,295,837
1924	17,473,040	10,975,990	19,482,895	15,495,169	40,100,102	19,937,836	67,427,793	1,058,763,297
1925	16,662,627	13,043,209	21,584,987	20,347,608	29,897,711	12,040,123	81,517,650	1,081,361,643
1926	22,893,264	11,655,670	25,314,991	26,980,699	59,182,272	15,418,236	89,701,926	1,328,700,137
1927	21,401,579	11,593,697	24,031,721	32,510,306	43,467,087	18,975,110	87,241,633	1,267,573,142
1928	20,906,209	12,111,355	24,067,837	26,284,727	46,421,392	14,193,029	88,715,879	1,250,598,034
1929	27,451,064	11,562,455	20,026,719	31,534,843	66,353,245	19,480,023	117,502,596	1,388,896,075
1930	21,804,282	12,650,967	23,904,998	33,745,291	47,031,442	16,334,963	94,197,335	1,144,938,070

* 9 months.

No. 4—STATEMENT showing the Value of Goods entered for Home Consumption, by Countries

Fiscal Year	United Kingdom	United States	France	Germany	Spain	Portugal	Italy	Netherlands
	\$	\$	\$	\$	\$	\$	\$	\$
1873.....	68,522,776	47,735,678	2,023,288	1,099,925	477,886	75,032	52,425	216,628
1874.....	63,076,437	54,283,072	2,302,500	956,917	458,067	100,544	46,085	256,138
1875.....	60,347,067	50,805,820	1,941,298	748,423	383,484	66,006	43,958	231,779
1876.....	40,734,260	46,070,033	1,840,877	482,587	436,034	71,655	40,412	267,079
1877.....	39,572,239	51,312,669	1,410,732	370,594	278,098	45,465	29,250	202,557
1878.....	37,431,180	48,631,739	1,385,003	399,326	277,429	41,913	53,310	213,014
1879.....	30,993,130	43,739,219	1,532,191	440,909	343,849	25,510	33,461	200,575
1880.....	34,461,224	29,346,948	1,115,841	449,791	236,518	35,767	459,508	171,245
1881.....	43,583,808	36,704,112	1,631,332	934,266	399,684	56,893	88,726	225,190
1882.....	50,597,341	48,289,052	2,097,358	1,480,004	462,219	51,912	93,086	248,043
1883.....	52,052,465	56,032,333	2,316,480	1,809,154	584,972	63,349	104,441	297,201
1884.....	43,418,015	50,492,826	1,769,849	1,975,771	504,477	67,983	75,348	318,477
1885.....	41,406,777	47,151,201	1,935,581	2,121,269	349,215	60,366	108,162	337,785
1886.....	40,601,199	44,858,039	1,975,218	2,155,523	379,465	56,477	106,697	301,972
1887.....	44,962,233	45,107,066	2,073,470	3,235,449	409,269	58,143	119,889	295,061
1888.....	39,298,721	48,481,848	2,244,784	3,364,563	374,932	72,576	180,726	331,791
1889.....	42,317,389	50,537,440	2,228,683	3,692,570	407,268	74,085	126,124	414,080
1890.....	43,390,241	52,291,973	2,615,602	3,778,993	322,546	84,034	163,486	422,267
1891.....	42,047,526	53,685,657	2,312,143	3,804,090	488,807	70,537	241,809	389,791
1892.....	41,348,435	53,137,572	2,402,634	5,583,530	396,173	53,109	341,559	278,288
1893.....	43,148,413	58,221,976	2,832,117	3,825,763	343,506	52,481	170,564	373,858
1894.....	38,717,267	53,034,100	2,536,964	5,841,542	389,296	47,106	402,443	344,706
1895.....	31,131,737	54,634,521	2,585,174	4,794,159	402,479	57,140	381,594	243,900
1896.....	32,979,742	58,574,024	2,810,942	5,931,459	361,778	46,696	230,917	299,852
1897.....	29,412,188	61,649,041	2,601,351	6,493,368	386,532	45,592	224,885	376,109
1898.....	32,500,917	78,705,590	3,975,351	5,584,014	488,787	47,319	421,258	374,047
1899.....	37,060,123	93,007,166	3,889,295	7,393,456	534,482	63,296	395,599	500,393
1900.....	44,789,730	109,844,378	4,368,502	8,383,498	560,701	72,785	144,573	579,582
1901.....	43,018,164	110,485,008	5,398,021	7,021,405	742,539	96,304	327,361	797,462
1902.....	49,213,762	120,807,050	6,672,194	10,823,169	694,970	129,379	726,742	875,615
1903.....	58,896,901	137,605,195	6,580,029	12,282,637	823,944	129,192	541,785	1,270,540
1904.....	61,777,574	150,826,515	6,206,525	8,175,604	865,096	100,713	401,928	916,071
1905.....	60,342,709	162,738,571	7,059,139	6,695,414	729,259	98,288	620,637	954,653
1906.....	69,194,588	175,862,071	7,667,987	6,987,314	928,791	128,604	553,755	1,179,892
*1907.....	64,581,373	155,943,029	6,699,412	5,474,908	886,154	128,084	454,505	1,001,990
1908.....	94,959,471	210,652,825	9,901,909	8,163,047	1,126,977	147,256	781,497	1,426,335
1909.....	70,682,944	180,026,550	8,197,435	6,050,365	933,854	122,283	761,339	1,273,121
1910.....	95,350,300	223,501,809	10,109,544	7,935,230	1,019,775	140,522	893,398	2,009,990
1911.....	109,936,462	284,934,739	11,563,773	10,047,340	1,154,747	186,380	962,148	1,820,578
1912.....	116,907,022	356,354,478	11,744,664	11,090,005	1,273,211	259,542	1,146,822	2,423,902
1913.....	138,749,998	441,141,562	15,379,764	14,214,547	1,258,970	343,249	1,713,585	3,109,554
1914.....	132,070,876	410,786,091	14,276,535	14,586,223	1,352,133	277,381	2,090,387	3,015,456
1915.....	80,160,781	428,616,927	8,449,186	5,086,986	977,448	215,608	1,472,799	1,769,256
1916.....	90,108,795	398,693,720	5,949,470	86,304	617,025	207,634	920,271	1,057,733
1917.....	121,763,214	677,631,676	6,481,098	14,132	909,546	260,094	1,227,007	1,234,993
1918.....	81,324,283	791,906,125	5,274,064	27,181	808,807	238,420	771,187	1,054,176
1919.....	73,035,118	746,920,654	3,632,900	75	697,643	111,689	555,112	495,409
1920.....	126,359,249	801,100,700	10,630,865	44,255	1,540,548	312,912	999,040	2,266,169
1921.....	213,973,562	856,176,820	19,138,062	1,547,685	2,317,179	517,222	1,745,330	4,237,791
1922.....	117,135,343	515,958,196	13,482,005	2,041,016	1,779,408	222,506	1,387,370	4,002,047
1923.....	141,330,143	540,989,738	12,264,921	2,568,409	1,696,910	124,028	1,601,225	4,970,668
1924.....	153,586,690	601,256,447	15,767,851	5,382,506	1,666,569	260,401	1,849,844	5,359,980
1925.....	151,083,946	509,780,009	18,460,625	6,787,611	1,768,222	327,788	1,930,492	5,082,842
1926.....	163,731,210	608,618,542	19,151,699	9,986,763	2,085,850	348,817	2,597,759	6,864,563
1927.....	163,939,065	687,022,521	23,992,322	15,030,138	2,220,823	471,026	3,444,062	7,693,668
1928.....	185,895,857	719,436,237	26,473,732	17,055,798	2,572,150	722,279	4,241,802	8,794,049
1929.....	194,041,381	868,012,229	26,215,696	20,797,683	2,703,075	678,030	4,260,325	9,016,763
1930.....	189,179,738	847,442,037	25,158,207	21,505,428	2,784,059	683,114	4,963,694	9,432,608

* 9 months.

No. 4—STATEMENT showing Value of Goods entered for Home Consumption, by Countries—*Concluded*

Fiscal Year	Belgium	New-foundland	West Indies	South America	China and Japan	Switzerland	Other Countries	Total
	\$	\$	\$	\$	\$	\$	\$	\$
1873.....	346,702	1,808,997	2,174,932	416,199	1,663,390	120,514	780,222	127,514,594
1874.....	293,659	1,088,468	2,307,733	473,530	1,224,506	139,674	396,839	127,404,169
1875.....	278,311	904,224	2,194,404	278,796	657,426	116,128	621,733	119,618,657
1876.....	361,055	774,586	1,616,113	287,553	948,239	56,168	746,567	94,733,218
1877.....	251,812	641,642	1,242,809	4,971	418,606	69,066	449,973	96,300,483
1878.....	255,694	672,665	1,033,849	15,447	383,676	61,178	344,154	91,199,577
1879.....	179,031	639,406	1,252,429	4,388	448,962	94,781	413,767	80,341,608
1880.....	149,086	581,961	2,945,154	283,481	893,911	94,225	557,689	71,782,349
1881.....	412,834	652,304	3,815,147	637,620	1,410,973	141,789	916,926	91,611,604
1882.....	503,210	493,509	4,023,384	1,373,617	1,529,042	268,093	1,139,057	112,648,927
1883.....	415,407	765,935	4,369,260	1,464,671	1,645,254	336,040	880,057	123,137,019
1884.....	459,150	780,670	3,606,917	1,478,988	1,909,562	242,380	1,080,231	108,180,644
1885.....	479,260	351,105	3,162,774	1,340,836	2,493,451	217,666	1,189,571	102,710,019
1886.....	510,907	384,321	3,144,472	1,100,995	2,432,585	203,085	1,391,739	99,602,694
1887.....	703,851	354,342	3,942,182	1,198,406	2,750,388	219,717	2,209,902	105,639,428
1888.....	488,743	421,599	3,268,663	876,603	2,128,707	193,838	1,117,006	102,847,100
1889.....	530,740	488,161	3,378,654	1,324,588	1,964,538	166,890	2,025,237	109,673,447
1890.....	721,332	469,711	3,089,048	1,003,962	2,100,065	316,523	1,995,841	112,765,584
1891.....	655,448	751,003	3,238,156	719,778	2,123,311	244,319	2,572,749	113,345,124
1892.....	517,032	753,249	4,092,287	877,821	3,016,857	192,365	3,988,029	116,978,943
1893.....	599,511	653,270	4,244,669	772,613	2,425,572	258,464	3,782,253	121,705,030
1894.....	550,237	814,562	3,677,411	872,392	2,254,919	274,825	3,066,216	113,093,983
1895.....	441,617	739,850	4,794,020	469,172	2,528,414	259,400	1,789,334	105,252,511
1896.....	920,758	551,412	1,896,426	567,027	2,671,418	332,120	2,413,009	110,587,480
1897.....	1,163,632	452,076	1,678,870	620,250	2,396,409	222,173	3,571,545	111,294,021
1898.....	1,230,110	464,324	1,080,266	1,425,653	2,317,971	349,678	1,732,721	130,698,006
1899.....	2,318,723	527,006	1,354,939	1,175,584	2,769,499	568,768	2,493,264	154,051,593
1900.....	3,223,918	660,678	1,331,776	992,887	2,381,144	529,176	2,940,988	180,804,316
1901.....	3,828,450	625,568	1,801,740	1,048,088	2,450,022	602,658	2,995,198	181,237,988
1902.....	1,711,599	1,117,400	2,173,835	1,659,074	1,984,876	765,010	3,436,920	202,791,595
1903.....	2,800,182	1,197,581	2,379,275	1,989,952	1,939,942	944,727	4,408,634	233,790,516
1904.....	3,129,513	1,076,667	4,813,815	3,157,004	2,565,976	1,389,000	6,062,331	251,464,332
1905.....	1,775,187	1,054,613	5,638,187	4,035,619	2,470,723	1,766,991	5,945,564	261,925,554
1906.....	2,610,072	1,758,425	6,591,083	5,869,075	2,217,517	2,012,405	6,799,228	290,360,807
*1907.....	1,695,179	1,463,731	3,406,723	5,229,818	2,110,719	1,604,692	6,574,479	257,254,882
1908.....	2,380,649	1,777,469	8,300,501	3,088,060	2,905,298	2,734,779	10,082,543	358,428,616
1909.....	1,901,588	1,638,428	8,092,303	4,783,893	2,626,736	2,188,265	8,926,853	298,205,957
1910.....	3,239,888	1,467,619	7,366,564	6,217,105	2,981,494	2,603,858	11,025,920	375,833,016
1911.....	3,614,354	1,818,260	9,035,863	7,334,136	3,106,138	3,102,910	13,333,490	461,951,318
1912.....	3,686,419	1,841,887	8,490,878	10,533,310	3,112,982	3,458,006	15,159,062	547,482,190
1913.....	4,020,178	2,056,974	10,576,966	10,528,857	4,256,301	4,296,702	23,869,838	675,517,045
1914.....	4,490,476	1,841,351	11,503,984	9,020,157	3,517,478	4,314,805	20,549,116	633,692,449
1915.....	1,875,963	1,245,160	11,088,894	9,594,128	3,825,848	3,979,256	19,081,064	587,439,304
1916.....	59,315	1,577,784	11,878,121	12,730,408	4,933,735	3,525,117	19,731,929	542,077,361
1917.....	14,896	2,147,808	18,744,704	13,306,837	9,251,077	4,499,321	15,951,083	873,437,426
1918.....	12,973	2,947,527	18,252,381	12,278,387	13,592,209	3,146,482	30,909,544	962,543,746
1919.....	6,270	3,098,834	16,300,764	13,437,101	15,572,588	1,780,812	40,784,366	916,429,335
1920.....	911,407	2,146,414	40,539,737	19,097,293	14,842,516	7,758,051	35,978,967	1,064,528,123
1921.....	4,693,368	2,886,203	53,317,859	19,356,073	13,258,170	14,143,448	32,850,110	1,240,158,882
1922.....	3,845,718	1,392,026	25,265,911	17,724,031	9,608,208	8,671,608	25,288,939	747,804,332
1923.....	4,994,787	1,398,726	29,827,826	16,106,651	8,671,707	7,726,656	28,306,849	802,579,244
1924.....	5,344,773	1,474,920	33,576,604	16,818,490	9,018,573	8,420,673	33,582,546	893,366,867
1925.....	5,067,866	1,643,162	25,460,658	20,095,731	9,514,936	7,801,575	32,127,074	796,932,537
1926.....	6,953,173	1,615,132	28,037,625	17,183,908	12,112,069	7,462,608	40,579,014	927,328,732
1927.....	9,663,308	1,868,601	28,634,810	19,961,045	16,211,972	9,491,779	41,247,365	1,030,892,505
1928.....	9,898,237	2,097,525	26,137,740	32,387,330	15,077,826	8,595,677	49,570,227	1,108,956,466
1929.....	12,014,538	2,513,406	21,974,321	26,473,076	16,016,613	7,917,445	53,044,510	1,265,679,091
1930.....	13,019,006	2,378,103	19,562,575	31,937,716	15,514,275	7,314,840	57,898,182	1,248,273,582

* 9 months.

No. 5—STATEMENT showing Duty collected by Countries

Fiscal Year	United Kingdom	United States	France	Germany	Spain	Portugal	Italy	Netherlands
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1873..	7,398,460 17	2,966,119 34	627,831 95	334,415 51	102,711 21	21,245 21	9,320 80	294,569 02
1874..	7,867,481 41	3,695,564 03	744,059 19	272,234 68	112,918 73	27,674 63	13,626 76	361,153 47
1875..	8,881,997 81	3,860,877 10	604,092 47	173,427 65	113,559 68	28,421 97	8,502 45	394,017 97
1876..	6,075,759 82	4,117,223 40	723,368 24	134,282 11	157,287 53	29,302 21	24,629 25	459,887 53
1877..	6,377,596 23	4,426,394 79	480,340 56	75,762 93	79,515 38	20,322 20	15,783 10	316,156 00
1878..	6,445,995 38	4,794,599 63	400,600 04	79,673 10	87,755 88	13,452 55	19,652 43	308,153 30
1879..	5,561,933 02	5,529,150 64	501,747 90	104,211 80	120,385 81	7,970 14	19,474 58	329,634 07
1880..	6,737,977 05	4,521,311 08	427,937 89	103,156 82	106,720 56	14,935 79	30,031 12	301,570 50
1881..	8,772,949 97	5,657,292 75	597,948 79	215,108 04	167,412 55	25,307 99	40,956 25	372,335 63
1882..	10,011,811 00	7,082,722 29	742,774 93	338,691 39	210,766 86	29,105 63	34,283 98	420,607 91
1883..	9,897,785 16	8,158,023 35	824,963 17	388,556 85	231,866 95	38,135 50	44,240 03	535,741 81
1884..	8,001,370 74	7,420,461 79	645,152 71	554,181 88	192,946 21	34,228 80	32,186 80	493,807 39
1885..	7,617,249 45	6,636,405 83	650,515 29	572,947 24	154,680 24	29,345 65	33,380 25	521,318 20
1886..	7,817,357 45	6,790,080 76	735,666 52	588,168 44	150,268 47	30,510 74	35,667 84	602,570 19
1887..	9,318,920 08	7,299,591 68	699,840 07	1,190,267 30	176,449 17	33,329 81	31,404 53	623,894 26
1888..	8,972,739 84	7,131,006 28	796,242 70	1,214,748 15	171,790 38	36,621 03	42,004 78	704,034 45
1889..	9,405,243 70	7,413,354 83	854,805 00	1,266,638 56	185,969 33	36,805 32	32,456 70	756,785 89
1890..	9,576,965 75	8,220,299 55	957,312 22	1,165,158 67	170,028 06	36,528 91	37,938 11	806,261 40
1891..	9,114,271 75	7,709,318 12	932,032 53	1,320,583 23	217,612 94	30,680 47	44,888 99	741,462 43
1892..	9,074,200 71	7,814,666 93	931,044 99	783,740 50	186,168 39	27,446 98	35,846 83	697,184 17
1893..	9,498,747 08	7,636,075 81	1,058,095 75	857,264 35	180,132 25	27,171 69	30,816 89	815,200 70
1894..	8,245,845 87	6,960,950 68	1,019,568 12	978,224 53	207,724 63	22,894 36	49,073 63	879,107 85
1895..	7,006,676 58	6,897,395 04	985,945 87	892,547 04	187,788 45	24,361 92	46,697 12	755,251 48
1896..	7,358,514 15	7,767,992 63	1,020,804 74	1,329,186 36	162,118 81	22,269 68	39,386 02	792,609 63
1897..	6,205,366 80	8,147,075 10	969,539 64	1,489,755 60	150,587 43	23,191 61	33,474 05	920,096 46
1898..	6,649,428 60	9,941,624 48	1,183,890 30	1,364,159 04	176,764 64	20,606 24	46,466 82	908,046 37
1899..	7,328,191 92	11,713,858 94	1,300,876 33	1,903,223 16	181,346 14	25,559 36	52,842 44	1,061,622 69
1900..	8,074,541 07	13,491,872 86	1,428,019 46	2,189,798 17	183,147 59	28,548 59	26,842 73	1,171,550 06
1901..	7,845,406 49	13,411,749 58	1,794,555 55	1,811,974 55	191,527 27	37,138 80	45,171 84	1,350,098 08
1902..	8,424,693 04	15,155,136 39	2,163,016 40	2,741,263 29	205,803 43	42,700 86	88,174 27	1,306,967 57
1903..	9,841,627 33	17,069,881 19	2,098,633 61	3,255,121 88	212,104 39	45,912 40	87,457 15	1,527,113 35
1904..	10,338,017 31	19,554,585 54	2,113,667 94	2,172,571 04	228,532 66	41,226 25	88,831 12	1,726,681 98
1905..	11,171,010 04	20,580,301 56	2,224,967 73	1,826,789 33	216,933 42	39,295 27	123,388 07	1,570,378 88
1906..	12,944,249 35	22,187,102 94	2,520,034 97	1,852,538 47	289,363 62	44,716 82	118,725 17	1,620,711 72
*1907..	41,823,197 06	19,084,738 46	2,219,577 38	1,521,946 23	197,483 36	43,941 45	91,853 92	1,309,895 96
1908..	17,265,293 25	27,132,543 26	3,331,350 36	2,434,641 34	301,055 23	54,079 21	126,376 10	1,812,404 99
1909..	13,449,341 99	22,526,806 65	2,801,383 52	1,709,641 79	255,514 39	48,470 49	112,251 96	1,731,470 46
1910..	18,032,629 10	29,515,836 43	3,269,278 92	1,934,523 03	290,268 99	45,590 34	156,168 96	1,875,408 97
1911..	20,756,810 71	37,854,727 80	3,342,954 67	2,153,180 04	237,265 35	75,334 02	175,984 52	2,052,451 84
1912..	22,367,039 82	49,177,584 32	3,436,947 88	2,246,745 17	334,321 59	90,568 14	197,252 39	2,254,024 52
1913..	27,158,162 29	68,929,805 04	4,141,150 64	2,881,497 00	245,919 50	119,061 09	315,391 84	2,570,778 05
1914..	25,816,854 15	61,895,167 68	4,223,138 30	3,114,324 84	250,904 64	113,335 74	383,037 75	2,755,883 50
1915..	18,447,534 18	42,335,574 74	2,900,280 46	1,089,038 74	189,612 71	87,207 21	279,181 33	2,277,291 85
1916..	14,782,858 14	49,908,888 80	2,053,019 90	13,319 28	130,859 23	81,588 45	183,779 26	1,820,520 79
1917..	18,801,123 35	75,516,313 64	1,909,617 93	3,338 02	168,360 18	87,295 25	233,380 58	1,154,834 68
1918..	14,077,045 20	88,018,758 84	1,514,316 82	6,408 39	171,714 82	68,999 65	155,635 27	594,803 69
1919..	11,164,989 99	87,079,923 49	1,041,795 76	69 20	17,494 76	29,761 47	94,969 56	137,543 82
1920..	20,562,024 47	112,359,727 73	2,118,122 55	11,019 34	222,558 80	56,303 41	159,539 54	469,554 53
1921..	35,615,766 12	110,366,769 74	4,360,667 54	135,890 10	377,423 20	110,965 74	312,631 00	2,279,379 89
1922..	23,585,155 14	71,864,841 71	3,503,657 16	229,948 22	320,168 17	47,747 09	208,488 61	1,188,703 33
1923..	28,424,485 40	74,779,233 75	3,446,706 01	331,728 59	348,850 51	38,302 55	231,478 54	1,216,114 49
1924..	28,136,459 19	79,345,249 74	5,390,368 21	1,138,208 78	478,617 53	105,923 85	314,405 09	1,308,160 02
1925..	27,543,640 17	66,317,496 83	5,717,901 99	1,477,362 18	486,044 58	158,446 33	336,082 17	1,292,850 06
1926..	30,134,249 71	80,816,739 34	6,102,174 95	1,985,471 43	417,015 31	161,583 62	458,972 92	1,215,817 95
1927..	32,330,634 01	90,779,661 28	7,666,059 92	3,002,776 56	468,576 73	185,384 24	693,044 42	1,003,180 79
1928..	38,377,522 19	97,124,431 08	9,135,133 59	3,690,687 07	529,364 24	274,442 34	783,745 77	1,561,979 38
1929..	39,980,680 22	122,779,384 44	9,509,100 89	4,731,043 72	548,143 42	196,394 91	811,677 73	2,103,695 78
1930..	37,846,166 96	122,122,853 26	9,234,611 70	4,680,463 88	539,680 53	137,580 93	1,030,738 42	2,224,420 45

* 9 months.

No. 5—STATEMENT showing Duty Collected by Countries—Continued

Fiscal Year	Belgium		New-foundland		West Indies		South America		China and Japan		Switzer-land		Other Countries		Additional duties, post entries, over- collections, War Tax		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1873.....	94,504	87	97,147	31	831,930	86	182,660	70	157	95	15,994	95	40,660	23	.....	.....	13,017	730 17
1874.....	51,171	82	54,929	33	935,653	11	194,325	88	26,185	10	21,950	85	42,963	77	.....	.....	14,421	882 67
1875.....	42,489	19	12,584	62	926,463	33	134,963	29	83,469	42	20,917	93	85,557	14	.....	.....	15,361	382 12
1876.....	61,407	14	4,890	45	603,819	86	120,843	58	132,042	28	10,274	57	178,096	41	.....	.....	12,833	114 48
1877.....	50,106	26	9,735	83	435,718	43	1,834	11	68,261	35	12,387	96	178,555	96	.....	.....	12,548	451 09
1878.....	45,144	82	4,921	23	341,240	28	6,874	10	113,447	24	9,855	02	124,338	17	.....	.....	12,795	693 17
1879.....	45,107	35	3,230	76	454,872	58	2,591	84	127,283	34	16,597	54	15,349	29	.....	.....	12,939	540 66
1880.....	41,886	44	3,168	48	1,305,495	00	161,936	81	207,920	61	18,764	19	156,016	88	.....	.....	14,138	849 22
1881.....	90,250	84	3,251	22	1,584,622	00	280,000	74	348,466	71	33,740	02	311,133	47	.....	.....	18,500	785 97
1882.....	119,492	16	1,781	73	1,615,945	44	504,255	74	178,499	40	65,780	72	352,318	25	.....	.....	21,708	837 43
1883.....	106,234	50	7,365	17	1,770,682	99	692,562	12	157,516	29	81,492	95	239,042	13	.....	.....	23,172	308 97
1884.....	103,953	96	4,158	34	1,397,926	55	688,702	68	273,708	37	65,966	92	265,210	23	.....	.....	20,164	963 37
1885.....	121,660	61	2,268	61	1,327,363	99	655,708	66	450,153	25	51,863	04	308,698	01	.....	.....	19,133	558 99
1886.....	132,116	62	2,467	99	1,384,327	91	503,735	53	148,098	67	49,052	66	478,033	91	.....	.....	19,448	123 70
1887.....	166,445	16	1,624	70	968,496	12	848,562	83	222,799	93	59,393	20	828,686	99	.....	.....	22,469	705 83
1888.....	117,228	81	3,211	68	1,831,368	64	641,854	29	162,844	61	43,788	82	340,166	62	.....	.....	22,209	641 53
1889.....	122,116	44	1,087	36	1,727,816	27	849,431	97	185,782	89	38,653	78	845,532	61	.....	.....	23,784	523 23
1890.....	150,349	40	3,386	14	1,228,589	61	559,312	13	216,956	50	79,331	47	804,400	21	.....	.....	24,014	908 07
1891.....	126,180	23	3,452	92	1,337,754	14	260,102	71	265,198	43	63,161	46	1,215,178	05	.....	.....	23,481	069 13
1892.....	104,003	88	4,191	49	272,167	34	75,439	20	273,256	10	49,388	45	201,112	48	.....	.....	20,550	581 53
1893.....	112,081	99	1,494	56	314,148	82	78,592	25	313,768	23	70,418	15	160,133	95	.....	.....	21,161	710 93
1894.....	119,020	54	1,623	12	292,464	66	73,489	61	273,712	97	73,695	14	172,318	29	.....	.....	19,379	822 32
1895.....	93,303	46	1,053	95	380,955	12	68,786	81	230,890	41	72,742	85	231,349	72	.....	.....	17,887	269 47
1896.....	192,457	64	1,197	81	478,829	02	106,494	83	265,572	02	93,877	62	521,413	34	.....	.....	20,219	037 32
1897.....	250,770	38	1,274	89	454,418	06	109,914	69	267,575	35	64,153	55	757,363	19	.....	.....	19,891	996 77
1898.....	287,411	60	1,690	86	304,971	01	9,761	63	291,747	74	91,525	82	328,978	26	.....	.....	22,157	788 49

No. 5—STATEMENT showing Duty Collected by Countries—*Concluded*

Fiscal Year	Belgium	New- foundland	West Indies	South America	China and Japan	Switzer- land	Other Countries	Additional duties, over- entries, post- collections, War Tax	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1899.....	663,898 07	1,669 28	374,161 69	97,167 56	349,381 86	156,108 44	414,920 52	109,390 35	25,734,228 75
1900.....	916,374 13	2,740 46	363,563 81	120,148 16	279,351 97	143,993 86	414,866 20	53,780 91	28,889,110 13
1901.....	1,081,162 82	1,180 88	471,923 66	205,344 97	341,473 58	159,147 86	416,207 47	43,006 49	29,106,979 89
1902.....	387,008 06	7,023 17	560,232 39	196,321 52	370,966 45	199,658 08	509,973 06	72,994 33	32,423,532 81
1903.....	602,178 47	1,914 12	684,985 96	303,880 29	355,971 92	255,250 99	980,341 56	87,773 38	37,110,354 59
1904.....	444,514 69	2,780 11	1,202,659 24	731,277 80	444,747 25	376,616 39	875,441 83	174,191 98	40,054,349 14
1905.....	321,094 73	2,435 98	1,184,429 72	591,697 60	489,814 72	469,943 37	982,111 49	233,640 77	42,924,339 62
1906.....	511,584 66	1,092 68	1,531,148 25	712,435 40	486,583 62	546,901 63	1,070,702 02	263,660 83	46,071,171 18
*1907.....	261,262 84	1,153 91	682,072 94	809,020 77	376,798 58	435,707 02	977,637 28	163,864 38	40,930,171 04
1908.....	375,296 31	4,146 35	615,082 47	474,074 29	525,328 90	733,350 11	2,846,353 13	286,708 68	58,331,074 91
1909.....	357,745 34	2,549 89	416,616 89	700,185 39	416,616 89	591,501 16	1,458,396 73	48,059,791 83	48,059,791 83
1910.....	520,726 06	8,364 10	1,575,328 09	831,553 03	435,600 94	630,135 47	1,578,994 86	314,912 94	73,424,239 21
1911.....	539,675 14	5,819 21	1,954,682 33	882,791 71	430,014 82	644,981 93	1,829,013 33	376,728 07	73,312,367 69
1912.....	521,234 65	3,077 98	2,070,708 91	1,238,183 43	451,158 58	718,800 23	2,045,332 94	322,446 97	87,376,036 52
1913.....	574,815 34	2,781 43	2,370,130 38	1,100,637 88	708,201 11	882,861 51	2,500,478 11	566,008 77	115,063,687 83
1914.....	618,893 63	4,313 81	2,755,822 67	1,095,047 81	553,856 80	900,781 99	2,123,206 25	586,006 72	107,180,378 33
1915.....	266,119 46	3,491 70	3,187,995 15	1,806,369 45	439,642 65	845,898 52	1,933,070 02	3,117,602 10	79,205,910 27
1916.....	13,297 01	68,345 89	3,672,837 99	2,781,485 91	639,804 01	734,943 00	1,336,202 54	25,718,350 66	103,940,100 86
1917.....	1,620 10	83,810 42	4,318,005 94	2,790,671 39	1,805,022 88	904,786 62	1,387,994 63	38,456,269 32	147,631,454 93
1918.....	87 11	73,979 57	4,017,803 98	2,609,282 59	2,530,134 05	594,563 01	1,346,001 97	45,816,093 55	161,595,628 51
1919.....	206 20	72,670 06	3,158,994 50	2,654,078 58	2,715,490 23	287,041 01	3,888,085 49	45,592,623 75	158,046,333 87
1920.....	138,363 80	4,987 65	7,688,536 32	2,733,804 22	3,138,343 34	1,540,820 39	3,982,656 16	32,336,819 52	187,524,181 77
1921.....	665,462 63	17,845 02	7,429,689 48	2,060,142 22	2,978,441 12	3,248,028 90	3,375,257 27	6,335,323 15	179,667,683 12
1922.....	435,772 60	14,399 98	7,500,705 96	3,420,645 94	2,502,473 93	2,160,749 67	3,711,558 05	792,288 34	121,487,393 90
1923.....	657,228 10	24,334 56	12,390,210 71	2,567,820 97	2,269,553 67	1,938,371 35	4,377,830 58	761,120 34	133,803,370 12
1924.....	736,546 01	39,217 51	6,007,949 80	1,995,065 17	2,139,705 95	2,147,670 55	4,916,353 90	922,443 46	135,122,344 76
1925.....	677,926 36	31,177 78	4,883,665 28	1,660,651 70	2,240,044 62	1,864,152 82	4,662,853 05	872,157 78	120,222,453 70
1926.....	908,732 95	18,580 00	10,341,391 19	1,240,458 68	2,873,714 10	1,813,210 07	4,560,321 46	384,676 39	143,933,110 07
1927.....	1,336,604 59	21,730 26	8,137,953 94	1,173,159 24	3,354,345 87	2,298,132 91	5,060,868 92	1,454,283 35	158,966,367 03
1928.....	1,432,763 16	26,138 94	4,781,567 95	1,548,290 50	3,490,940 94	2,022,455 76	5,462,422 64	1,630,892 45	171,872,768 00
1929.....	1,672,840 04	47,024 73	4,506,675 70	1,504,686 55	3,354,578 52	1,762,580 90	5,278,852 40	1,902,145 51	200,479,505 46
1930.....	1,795,760 71	26,945 27	4,467,596 86	2,222,848 51	3,074,263 70	1,539,894 43	6,143,416 25	1,924,386 46	199,011,628 32

*9 months.

No. 6—STATEMENT showing Percentage of Duty on Total Value of Goods entered for Home Consumption, Dutiable and Free; and percentage expense of collection of Customs Revenue in the Dominion of Canada, during each year from 1868 to 1930, inclusive.

Year	Percentage of duty on Total Value of Goods entered for Home Consumption Dutiable and Free	Percentage Expense of Collec- tion of Customs Revenue
	p.c.	p.c.
1868.....	12.25	05.09
1869.....	12.31	07.09
1870.....	13.28	05.41
1871.....	13.62	04.21
1872.....	12.11	04.04
1873.....	10.20	04.35
1874.....	11.32	04.55
1875.....	12.83	04.44
1876.....	13.44	05.61
1877.....	13.03	05.75
1878.....	14.03	05.58
1879.....	16.10	05.56
1880.....	19.70	05.04
1881.....	20.19	03.87
1882.....	19.27	03.33
1883.....	18.82	03.26
1884.....	18.64	03.96
1885.....	18.61	04.14
1886.....	19.50	04.10
1887.....	21.24	03.64
1888.....	21.57	03.81
1889.....	21.65	03.62
1890.....	21.21	03.63
1891.....	20.06	03.83
1892.....	17.56	04.39
1893.....	17.38	04.26
1894.....	17.13	04.75
1895.....	16.99	05.13
1896.....	18.28	04.43
1897.....	17.87	04.73
1898.....	16.95	04.37
1899.....	16.70	04.02
1900.....	15.98	03.71
1901.....	16.06	03.86
1902.....	15.99	03.62
1903.....	15.87	03.31
1904.....	16.28	03.31
1905.....	16.04	03.49
1906.....	16.07	03.31
1907.....	15.66	03.04
*1907.....	16.27	03.30
1908.....	16.11	04.15
1909.....	16.24	03.31
1910.....	15.87	02.98
1911.....	16.00	02.78
1912.....	17.03	02.74
1913.....	16.91	03.59
1914.....	17.39	04.77
†1915.....	20.47	03.55
†1916.....	17.46	02.54
†1917.....	16.79	02.51
†1918.....	17.24	03.13
†1919.....	17.61	02.49
†1920.....	14.49	03.36
†1921.....	16.25	03.22
††1922.....	16.67	02.58
†1923.....	15.13	02.49
†1924.....	15.08	03.09
†1925.....	15.52	02.83
†1926.....	13.96	02.66
†1927.....	15.49	03.09
†1928.....	15.80	03.02
1929.....	15.94	03.30
1930.....		

*9 months. †Exclusive of coin and bullion, and including war tax. ††Percentage expense of collection, calculated on total Customs and Excise Revenue in 1922 and subsequent years.

No. 7—COMPARATIVE STATEMENT of the Values of the Imports entered for fiscal year from 1868 to 1930; showing also percentage excess of Imports entered for Home Consumption

	Imports entered for Home Consumption				Exports				
	Merchandise		Coin and Bullion	Totals	Merchandise		Coin and Bullion	Totals	
	Dutiable	Free			Produce	Non-Produce			
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1868	43,655,696	23,434,463	4,895,147	71,985,306	48,504,899	4,196,821	4,866,168	57,537,888	
1869	41,069,342	22,085,599	4,247,229	67,402,170	52,400,772	3,855,801	4,218,208	60,474,781	
1870	45,127,422	21,774,652	4,335,529	71,237,603	59,043,590	6,527,622	8,002,278	73,573,490	
1871	60,094,362	24,120,026	2,733,094	86,947,482	57,630,024	9,853,244	6,690,350	74,173,618	
1872	68,276,157	36,679,210	2,753,749	107,709,116	65,831,083	12,798,182	4,010,398	82,639,663	
1873	71,198,176	53,310,953	3,005,465	127,514,594	76,538,025	9,405,910	3,845,987	89,789,927	
1874	76,232,530	46,948,357	4,223,282	127,404,169	76,741,997	10,614,096	1,995,835	89,351,928	
1875	78,138,511	39,270,057	2,210,089	119,618,657	69,709,823	7,137,319	1,039,837	77,886,979	
1876	60,238,297	32,274,810	2,220,111	94,733,218	72,491,377	7,234,961	1,240,037	90,966,435	
1877	60,916,770	33,209,624	2,174,089	96,300,483	68,030,546	7,111,108	733,739	75,875,393	
1878	59,773,039	30,622,812	803,726	91,199,577	67,989,800	11,164,878	168,989	79,323,667	
1879	55,426,836	23,275,683	1,639,089	80,341,608	62,431,025	8,355,644	704,586	71,491,255	
1880	54,182,967	15,717,575	1,881,807	71,782,349	72,899,697	13,240,006	1,771,755	87,911,458	
1881	71,620,725	18,867,604	1,223,440	91,611,604	83,944,701	13,375,117	971,005	98,290,823	
1882	85,757,433	25,387,751	1,503,743	112,648,927	94,137,657	7,628,453	371,093	102,137,203	
1883	91,588,339	30,273,157	1,275,523	123,137,019	87,702,431	9,751,773	311,600	98,085,804	
1884	80,010,498	25,962,480	2,207,666	108,180,644	79,833,098	9,389,106	2,184,292	91,406,496	
1885	73,269,618	26,486,157	2,954,244	102,710,019	79,131,735	8,079,646	2,026,980	89,238,361	
1886	70,658,819	25,333,318	3,610,557	99,602,694	77,756,704	7,438,079	56,531	85,251,314	
1887	78,120,679	26,986,531	3,522,218	105,639,428	80,960,909	8,549,333	5,569	89,515,811	
1888	69,645,824	31,025,804	2,175,472	102,847,100	81,382,072	8,903,394	17,534	90,203,000	
1889	74,475,139	34,623,057	575,251	109,673,447	80,722,456	6,938,455	1,978,256	89,189,167	
1890	77,106,286	34,576,287	1,083,011	112,765,584	85,257,586	9,051,781	2,439,782	96,749,149	
1891	74,536,068	36,997,918	1,811,170	113,345,124	88,671,738	8,798,631	946,927	98,417,296	
1892	69,160,377	45,999,676	1,818,530	116,978,943	99,032,466	13,121,791	1,809,118	113,963,375	
1893	69,873,571	45,297,259	6,534,200	121,705,030	105,488,798	8,941,856	4,133,698	118,564,352	
1894	62,779,182	46,291,729	4,023,072	113,093,983	103,851,764	11,833,805	1,839,380	117,524,949	
1895	58,557,655	42,118,236	6,526,620	105,252,511	102,828,441	6,485,043	4,325,319	137,950,253	
1896	67,239,759	38,121,402	5,226,319	110,587,480	109,707,805	6,606,738	4,699,309	121,013,852	
1897	66,220,599	30,397,062	4,676,194	111,294,021	123,632,540	10,825,163	3,492,550	137,950,253	
1898	74,625,088	51,682,074	4,390,844	130,698,006	144,548,662	14,980,883	4,623,138	164,152,683	
1899	89,433,172	59,989,244	6,529,177	154,051,593	137,360,792	10,250,088	4,016,025	158,996,905	
1900	104,346,795	68,304,881	8,152,640	180,804,316	168,972,301	14,265,254	8,657,168	191,894,732	
1901	105,969,756	71,961,163	3,307,069	181,237,988	177,431,386	17,077,757	1,978,489	196,487,632	
1902	118,657,496	78,080,308	6,053,791	202,791,595	196,019,763	13,951,101	1,669,422	211,640,286	
1903	136,796,065	88,298,744	8,695,707	233,790,516	214,401,674	10,828,087	619,963	225,849,724	
1904	148,909,576	94,999,839	7,554,917	251,464,332	198,414,439	12,641,239	2,465,557	213,521,236	
1905	150,928,787	101,035,427	9,961,340	261,925,554	190,854,946	10,617,115	1,844,811	203,316,872	
1906	173,046,109	110,694,171	6,620,527	290,360,807	235,483,956	11,173,846	9,928,828	256,586,630	
*1907	152,065,529	98,160,306	7,029,047	257,254,882	180,545,306	11,541,927	13,189,964	205,277,197	
1908	218,160,447	134,380,832	5,887,737	358,428,616	246,960,968	16,407,984	16,637,654	280,006,606	
1909	175,014,160	113,580,036	6,611,761	295,205,957	242,603,584	17,318,782	1,589,793	261,512,159	
1910	227,264,346	143,053,853	5,514,817	375,833,016	279,247,551	19,516,442	2,594,536	301,358,529	
1911	282,723,812	170,000,791	9,226,715	461,951,318	274,316,553	15,683,657	7,196,155	297,196,365	
1912	335,304,060	187,100,615	25,077,515	547,482,190	290,223,857	17,492,294	7,601,099	315,317,250	
1913	441,606,885	229,600,349	4,309,811	675,517,045	355,754,600	21,313,755	16,163,702	393,232,057	
1914	410,258,744	208,935,254	14,498,451	633,692,449	431,588,439	23,848,785	23,560,704	478,997,928	
1915	279,792,195	176,163,713	131,483,396	587,439,304	409,418,836	52,023,673	29,366,368	490,808,877	
1916	289,366,527	128,834,607	33,876,227	542,077,361	741,610,638	37,689,432	108,572,432	882,872,502	
1917	461,733,609	384,717,269	26,986,548	873,437,426	1,151,375,768	27,835,332	196,547,048	1,375,758,148	
1918	542,341,522	421,191,056	11,290,341	974,822,919	1,540,027,788	46,142,004	3,491,403	1,589,661,195	
1919	526,494,658	393,217,047	.....	916,429,335	1,216,443,306	52,321,479	.....	1,268,765,285	
1920	693,655,165	370,872,958	.....	1,064,528,123	1,239,492,098	47,166,611	.....	1,286,658,709	
1921	847,561,406	392,597,476	7,218,775	1,240,158,882	1,189,163,701	21,264,418	34,184,673	1,210,428,119	
1922	495,626,323	252,178,009	4,788,246	747,804,332	740,240,680	13,686,329	23,337,331	753,927,009	
1923	567,258,782	265,320,462	26,455,231	802,579,244	931,451,443	13,844,394	27,548,866	945,295,837	
1924	591,299,094	302,067,773	3,496,705	893,366,867	1,045,351,056	13,412,241	25,445,830	1,058,763,297	
1925	516,014,455	280,918,082	4,142,292	796,932,537	1,069,967,353	12,294,290	4,919,973	1,081,361,643	
1926	583,051,670	344,277,062	51,437,859	927,328,732	1,315,355,791	13,344,346	71,122,711	1,328,700,137	
1927	659,897,013	370,995,492	46,086,458	1,077,979,963	1,252,157,506	15,415,636	45,052,210	1,267,573,142	
1928	710,050,228	398,906,238	31,308,807	1,108,956,466	1,228,207,606	22,248,691	61,886,967	1,250,456,297	
1929	821,075,430	444,603,661	29,560,310	1,265,679,091	1,363,709,672	25,186,403	95,232,463	1,388,896,075	
1930	819,230,474	429,043,108	2,698,906	1,248,273,582	1,120,258,302	24,679,768	4,905,218	1,144,938,070	

* 9 months.

Home Consumption and Exports into and from the Dominion of Canada in each
 entered for Home Consumption over Exports or of Exports over Imports
 in each year

Excess Value of Merchandise imported for Home Consumption over		Excess of total Exports over total Imports entered for Home Consumption including Coin and Bullion	Percentage Excess of Total Imports entered for Home Consumption over total Exports including Coin and Bullion	Percentage Excess of Total Exports over total Imports entered for Home Consumption including Coin and Bullion	Percentage, Increase or Decrease				
Merchandise Exported — Produce	Merchandise Exported — Produce and non-Produce				Gross Imports entered for Home Consumption compared with preceding year		Gross Exports compared with preceding year		
					Increase	De-crease	Increase	De-crease	
\$	\$	\$	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
18,585,260	14,388,439		25.04			6.4	5.05		1868
10,754,169	6,898,368		11.5				21.7		1869
7,858,484	1,330,862	2,335,887	17.2	3.3	5.7		0.8		1870
26,584,364	16,731,120		30.3		22.05		11.4		1871
39,124,284	26,326,102		42.01		23.9		8.6		1872
47,971,104	38,565,194		42.6		18.4				1873
46,438,890	35,824,794		53.6			00.09		00.5	1874
47,698,745	40,561,426		17.0			00.6		12.8	1875
20,021,670	12,786,709		27.05		1.7	20.8	3.9	6.3	1876
26,095,848	18,984,740		14.9			5.3	4.5		1877
22,406,051	11,241,173		12.4			11.9		9.9	1878
16,271,494	7,915,850					10.7	22.9		1879
		16,129,109		22.5			11.8		1880
		6,679,219		7.3		27.6	3.9		1881
6,543,628			10.3		22.9				1882
17,007,527	9,379,074		25.5		9.3			3.9	1883
34,159,065	24,407,292		18.4			12.1		6.8	1884
26,139,880	16,750,774		15.1			5.06		2.4	1885
20,624,040	12,544,394		16.8			3.03		4.5	1886
18,235,433	10,797,354		18.01		6.06		5.0		1887
24,146,301	15,596,968		14.02			2.6	00.7		1888
19,289,556	10,486,162		22.9		6.6			1.1	1889
28,825,740	21,887,285		16.6		2.8		8.5		1890
26,424,987	17,373,206		15.2		00.5		1.7		1891
22,862,216	14,063,585		2.7		3.2		15.8		1892
16,127,947	3,006,156		2.6		4.04		4.04		1893
9,682,032	740,176			3.9		7.08		00.9	1894
5,219,147		4,430,966		7.9		6.9		3.3	1895
		8,386,292		9.4					1896
		10,426,372		23.9		5.07		6.5	1897
		26,656,232		25.6		00.6		13.9	1898
		33,454,677		3.2		17.4		18.9	1899
11,985,667		4,845,312		6.1		17.9			1900
3,534,577		11,090,407		8.4		17.4		20.8	1901
269,306		15,249,644		4.4		00.2		2.4	1902
460,427		8,848,691				11.9		7.7	1903
10,412,045			3.5			15.3		6.7	1904
15,175,580	32,534,341		17.7			7.6		5.5	1905
60,762,623	50,145,508		28.8			4.2		4.8	1906
47,798,248	36,624,402		13.2			10.9		26.2	1907
69,192,568	57,650,641		25.3				11.4	19.9	1908
104,918,987	88,511,003		24.4			39.3		36.4	1909
45,613,931	28,295,149		14.0				16.9	6.6	1910
90,567,876	71,051,434		24.7			26.03		15.2	1911
177,428,555	161,744,898		55.4			22.9		3.09	1912
231,224,452	213,732,158		73.9			18.5		24.7	1913
314,334,466	293,020,711		71.7			23.4		21.8	1914
186,868,705	163,019,920		32.3				6.2	21.8	1915
46,027,476			19.7				7.3	2.5	1916
		340,795,141		62.9			7.7	79.9	1917
		502,320,722		57.5				55.8	1918
		1623,626,046		164.8		61.1		134.5	1919
		1352,335,950		138.4		113.8			1920
		1222,130,586		120.8		116.1		100.1	1921
			12.5			116.5			1922
150,995,181	129,730,763			11.22			139.7		1923
17,563,652		16,122,677		117.8				125.4	1924
		1142,716,593		118.5		11.3		112.0	1925
		1165,396,430		135.6			110.8	12.1	1926
		1284,429,106		143.3		116.4		122.9	1927
		1401,371,405		122.9		111.1			1928
		1236,680,637		112.7		17.5		11.3	1929
		1141,499,831		19.1		112.4		19.9	1930
		1123,216,986							
1123,015,280	1103,335,512		18.3				11.4	121.3	1930

*9 months.

†Merchandise only.

No. 8—STATEMENT showing the number of Foreign Automobiles entering Canada for touring purposes during each calendar year from 1920 to 1929 inclusive, for periods of twenty-four hours or less and between twenty-four hours and six months, and also the number of Canadian Automobiles leaving Canada for touring purposes for those years.

Year	Foreign automobiles entering for touring purposes for period not exceeding twenty-four hours	Foreign automobiles entering for touring purposes for periods from twenty-four hours to six months	Canadian automobiles leaving for touring purposes
1920.....	†	93,509	*
1921.....	†	617,295	*
1922.....	818,356	177,935	100,810
1923.....	1,662,200	274,398	126,628
1924.....	1,524,166	355,044	162,475
1925.....	1,945,035	484,109	223,079
1926.....	1,549,131	560,605	357,861
1927.....	2,410,087	743,713	495,929
1928.....	2,698,737	946,718	519,871
1929.....	3,416,588	1,092,221	619,572

† Included in column 2. *No statistics kept.

PROVINCE OF NOVA SCOTIA

No.	Ports	Fiscal Year ended March 31, 1928				Fiscal Year ended March 31, 1929				Fiscal Year ended March 31, 1930			
		Exports		Imports entered for Home Consumption	Duty	Exports		Imports entered for Home Consumption	Duty	Exports		Imports entered for Home Consumption	Duty
		\$	\$			\$	\$			\$	\$		
1	Amherst.....	289,085	339,920		45,612 22	210,840	361,920	52,426 92	407,218	432,751		62,130 82	
2	Annapolis.....	141,586	84,057		14,317 01	24,166	56,105	9,048 07	27,511	58,764		6,445 35	
3	Antigonish.....		37,487		6,969 77		61,251	11,973 29		60,257		8,523 26	
4	Aricat.....	144,793	7,955			147,836	7,179	673 33		74,573		15,613 75	
5	Baddeck.....	186,623	9,997		1,396 88	702,312	11,154	2,063 30		18,969		4,612 86	
6	Barrington Passage.....	133,758	11,754		1,179 12	103,030	18,761	1,422 51		16,007		2,215 00	
7	Bridgewater.....	603,947	104,463		12,978 51	645,980	150,597	25,467 72		210,185		32,363 17	
8	Canso.....	707,712	84,022		14,294 82	536,294	124,140	23,965 72		72,984		11,122 22	
9	Digby.....	365,922	88,907		12,673 00	339,587	117,257	21,946 58		97,002		11,827 84	
10	Glace Bay.....		273,038		56,491 15		247,116	41,141 11					
11	Hallifax.....	35,819,784	19,908,515		2,793,297 30	42,179,169	22,480,801	2,571,463 46	45,894,686	25,940,282		2,505,216 82	
12	Kentville.....	91,028	287,663		17,104 72	52,268	494,505	20,434 71	919,071	343,028		22,716 12	
13	Liverpool.....	225,780	134,001		8,685 67	238,715	343,658	55,801 85	266,016	806,790		107,288 97	
14	Lockeport.....	48,900	13,337		663 91	40,389	16,834	1,354 35	37,730	20,299		3,526 97	
15	Lunenburg.....	585,630	376,874		10,661 93	408,412	403,274	15,910 84	438,136	493,486		20,261 89	
16	Middleton.....	6,213	16,556		1,330 77	4,494	19,885	1,887 39		26,431		2,702 71	
17	New Glasgow.....		613,498		71,899 26		1,232,917	122,113 11		1,265,993		174,364 82	
18	North Sydney.....		353,574		24,348 26	2,974,720	403,599	33,405 30	3,596,706	433,232		26,171 00	
19	Parsboro.....	2,602,656	10,808		1,731 18	1,148,792	7,611	1,509 49	1,024,170	12,663		2,440 90	
20	Pictou.....	978,060	58,572		8,648 57	441,882	168,670	8,643 46	4,424,727	9,552		9,055 59	
21	Port Hawkesbury.....	73,678	18,062		3,207 05	97,574	102,422	2,743 40	235,152	69,848		15,974 99	
22	Port Hood.....	50,602	30,235		3,064 46	141,846	27,628	7,531 16					
23	Shelburne.....	174,965	30,193		6,021 07	2,866,274	2,988,736	245,235 56	45,001	31,687		5,219 84	
24	Sydney.....	4,060,054	2,078,198		176,711 30	39,266	870,771	136,475 45	3,008,406	3,737,388		331,349 73	
25	Truro.....	55,594	24,151		137,566 52	332,328	40,785	3,017 67	21,213	759,011		111,431 01	
26	Weymouth.....	315,389	920,308		2,764 95	1,184,383	456,280	67,953 44	270,936	59,456		2,222 67	
27	Windsor.....	1,202,164	524,981		25,462 15	1,184,383	456,280	1,133,481	1,333,481	646,576		25,250 88	
28	Yarmouth.....	2,420,068	1,285,327		54,905 85	2,656,805	1,634,419	2,855,560	2,855,560	1,646,477		74,160 81	
	Total.....	52,333,249	27,746,453		3,514,903 71	57,679,784	32,821,746	3,512,967 31	62,579,160	37,429,661		3,594,209 99	

No. 9—STATEMENT (by Provinces) showing the Value of Exports, of Total Imports entered for Home Consumption, etc.—*Continued*

PROVINCE OF PRINCE EDWARD ISLAND

No.	Ports	Fiscal Year ended March 31, 1928				Fiscal Year ended March 31, 1929				Fiscal Year ended March 31, 1930			
		Exports	Imports entered for Home Consumption	Duty	Exports	Imports entered for Home Consumption	Duty	Exports	Imports entered for Home Consumption	Exports	Imports entered for Home Consumption	Duty	
1	Charlottetown.....	\$ 1,076,336	\$ 1,181,541	147,034 88	797,520	1,239,149	123,403 52	1,749,846	1,137,043			134,685 56	
2	Summerside.....	189,552	553,042	39,584 70	158,592	569,564	36,129 75	771,714	467,749			44,073 50	
	Total.....	1,265,888	1,734,583	186,619 58	956,112	1,808,713	159,533 27	2,521,560	1,604,792			178,759 06	

PROVINCE OF NEW BRUNSWICK

1	Bathurst.....	197,918	307,402	18,073 00	87,331	448,093	42,461 54	102,073	325,442			29,155 09	
2	Campbellton.....	1,124,562	256,864	22,081 51	583,368	398,384	45,859 85	495,228	1,338,768			247,615 52	
3	Chatham.....	912,242	179,281	9,319 40	899,741	126,783	11,562 95	559,118	200,508			13,092 78	
4	Fredericton.....	2,031,145	2,981,732	649,225 57	9,124,181	2,334,454	778,097 10	.....	2,300,519			835,794 14	
5	McAdam Junction.....	14,074,299	2,131,722	23,212 43	9,124,181	336,559	25,199 67	11,238,213	347,108			39,816 97	
6	Moncton.....	361,629	2,134,767	393,441 70	282,982	3,344,959	445,532 49	284,112	2,377,906			450,216 05	
7	Newcastle.....	358,096	51,909	7,159 73	291,926	69,834	11,719 12	42,837	67,908			9,213 60	
8	Sackville.....	.....	130,267	13,035 33	.....	152,249	18,488 21	.....	178,251			18,103 56	
9	St. Andrews.....	338,609	292,483	20,444 05	411,836	272,864	23,335 14	463,507	277,589			21,959 56	
10	St. John.....	50,466,168	17,357,214	2,639,023 50	55,861,050	15,691,713	2,175,411 41	41,395,708	16,586,341			2,210,096 06	
11	St. Stephen.....	258,148	1,402,723	91,662 49	263,701	1,595,214	82,025 73	219,586	1,460,023			74,206 18	
12	Woodstock.....	3,429,874	802,207	116,966 48	5,045,485	994,733	134,150 54	6,406,048	778,921			94,597 81	
	Total.....	71,521,545	25,227,984	4,004,245 19	72,851,601	24,764,939	3,793,843 75	61,208,430	26,239,284			4,043,867 32	

PROVINCE OF QUEBEC

1	Athelstan	33,743,853	3,080,673	210,924 59	28,389,612	3,166,908	189,867 49	24,312,858	3,153,396	162,921 81
2	Beebe Junction	7,600,961	1,440,890	140,746 37	8,230,516	1,966,850	105,535 65	8,091,989	2,973,974	194,872 05
3	Chicoutimi	5,766,473	3,433,980	325,733 44	3,433,980	3,502,384	239,767 72	9,680,612	7,066,616	30,951 79
4	Coaticook	16,576,493	426,211	36,102 13	11,434,269	4,879,869	430,471 22	259,142	4,298,035	383,859 74
5	Drummondville				412,706	55,238	2,739 58		51,219	2,916 25
6	Gaspé	317,991	40,358	1,975 58		1,496,912	149,123 59		1,745,155	145,323 30
7	Granby		1,655,933	128,709 25		2,829,280	240,417 44		2,484,225	215,969 77
8	Hull		2,573,928	291,896 89		69,780	8,241 22		82,202	7,845 55
9	Lake Mégantic		40,154	7,084 79	294,265			304,042		
10	Montreal	1,308,697	227,916,633	36,999,655 78	235,665,267	245,524,953	42,773,672 26	161,577,392	255,769,232	44,901,509 14
11	Paspebiac	187,612,703	17,518	1,647 20	94,772	179,540	1,862 78	646,255		36,637 34
12	Perce	74,255	285,920	27,553 74	514,249		26,697 26			
13	Port Burwell	327,334		2,361 88						
14	Quebec	14,814,794	14,713	2,933,360 43	22,043,070	17,567,179	2,780,727 96	12,772,683	17,031,590	2,596,949 79
15	Rimouski	908,125	124,381	15,365 60	1,111,804	290,595	46,631 91	7,082,513	230,734	35,716 77
16	Rock Island				23,055,644	511,533	87,984 58	27,811,139	1,788,614	117,237 86
17	Saint Armand	13,352,763	325,901	38,457 94		2,944,027	175,303 90		577,064	45,529 34
18	Saint Hyacinthe	493	7,399,242	675,788 31	60,692,647	10,508,731	937,060 32	70,542,168	3,668,025	232,276 55
19	Saint John's	63,631,855	5,413,005	742,778 45		4,782,860	265,172 46		10,706,703	1,000,423 76
20	Shawinigan Falls		8,213,374	254,896 92		10,707,835	1,055,351 80		5,531,256	295,840 79
21	Sherbrooke	474,878	9,215,252	918,923 66	530,865	10,707,835	56,198 28	416,119	10,195,484	1,081,921 25
22	Sorel	175,168	680,868	47,656 07	232,579	856,746	72,201 06	201,728	863,861	71,482 04
23	Sutton	11,712,839	267,481	48,955 78	16,443,180	364,808	50,177 46	15,233,001	397,259	53,283 77
24	Three Rivers	3,835,953	6,703,168	604,433 17	5,006,672	4,781,299	417,746 46	5,624,968	5,017,460	421,370 24
25	Valleyfield		2,614,879	73,469 86		3,099,108	64,803 42		2,925,978	289,306 61
Total		362,860,712	305,065,264	44,528,477 83	417,586,970	320,549,122	50,159,069 88	345,602,133	330,429,503	52,344,645 89

PROVINCE OF ONTARIO

1	Amherstburg	3,280,948	1,676,087	329,830 43	2,986,215	1,715,490	320,870 80	7,000,824	2,067,967	473,943 80
2	Belleville	381,588	2,648,980	437,897 35	1,193,305	3,433,339	916,140 96	285,249	2,471,257	591,015 82
3	Bowmanville		1,353,746	120,994 48		1,062,724	108,227 88		884,336	99,407 49
4	Brantford	7,804	7,659,474	564,350 00	9,635	8,499,420	641,482 73	14,945	7,906,625	634,460 63
5	Bridgeburg	72,778,951	5,326,719	749,742 39	84,000,499	6,854,904	838,160 39	86,333,131	6,091,676	897,942 86
6	Brockville	621,327	2,369,706	148,458 17	703,469	4,002,393	109,582 82	635,408	6,471,581	130,715 53
7	Chatham	2,420,861	5,454,998	864,617 08	513,779	7,169,359	1,254,533 09	603,897	4,778,380	827,044 51
8	Cobourg	2,110,032	3,483,593	235,050 26	1,912,728	2,160,499	262,325 82	1,758,858	2,310,133	341,246 31
9	Collingwood		478,519	28,162 31		434,227	30,721 48		315,954	33,573 15
10	Cornwall	4,306,590	3,060,395	196,691 15	6,704,731	4,030,250	242,550 28	4,778,612	2,853,511	210,339 94
11	Deseronto	128	50,674	6,392 54	5,026	57,796	8,893 33	743	2,992	510 46
12	Fort Frances	19,347,308	2,043,444	391,494 23	18,834,953	1,826,966	314,526 21	19,527,358	1,589,979	281,463 21
13	Fort William	86,519,016	6,432,329	1,096,867 66	89,937,374	10,676,310	1,553,774 10	36,599,237	10,070,138	1,458,319 61
14	Galt	1,802	5,902,974	497,174 87	1,765	6,825,195	533,229 47	16,966	6,679,742	554,524 38
15	Gananoque	41,742	528,340	73,850 67	30,248	635,604	97,531 37		415,160	58,791 92

No. 9—STATEMENT (by Provinces) showing the Value of Exports, of Total Imports entered for Home Consumption, etc.—Continued

PROVINCE OF ONTARIO—Concluded

No.	Ports	Fiscal Year ended March 31, 1928			Fiscal Year ended March 31, 1929			Fiscal Year ended March 31, 1930		
		Exports	Imports entered for Home Consumption	Duty	Exports	Imports entered for Home Consumption	Duty	Exports	Imports entered for Home Consumption	Duty
		\$	\$	\$	\$	\$	\$	\$	\$	\$
16	Goderich.....	1,228,152	113,435 43	439,728 62	5,254	1,517,044	138,917 84	32,498	1,372,475	138,201 57
17	Guelph.....	4,755,708	439,728 62	439,728 62		5,134,217	484,537 44		4,916,837	70,707 59
18	Hamilton.....	4,260,532	4,439,128 66	4,439,128 66	4,276,650	52,979,221	5,638,118 91	3,347,010	53,449,526	6,442,157 26
19	Ingersoll.....	750,130	77,016 26	8,900 27	21,577	903,463	107,684 73		944,456	109,570 36
20	Kenora.....	542,785	8,900 27	261,866 97	304,525	634,317	113,022 02	22,826	84,930 82	84,930 82
21	Kingston.....	2,976,565	261,866 97	1,177,944 70		2,915,263	240,502 95	428,038	2,125,824	235,265 61
22	Kitchener.....	13,983,286	1,177,944 70	104,345 23		14,949,214	1,183,113 90		13,512,517	1,213,374 51
23	Lindsay.....	570,448	104,345 23	1,721,454 98		672,711	123,793 59		13,510,709	69,936 20
24	London.....	12,316,421	1,721,454 98	119,170 39	5,096	13,402,079	1,791,383 48		13,384,241	2,062,855 32
25	Midland.....	1,300,135	119,170 39	12,883 75		933,183	97,584 26		1,087,825	81,458 86
26	Morrisburg.....	114,631	178,667	50,447 26	133,429	192,261	12,033 21	182,593	193,071	19,648 14
27	Napanee.....	375,844	50,447 26	1,533,669 34		439,294	58,540 40		449,261	59,953 30
28	Niagara Falls.....	95,254,640	10,486,808	618,700 62	100,057,137	13,123,150	1,764,337 39	104,066,323	13,044,414	1,962,118 36
29	North Bay.....	517,180	4,137,663	92,709 65	419,882	3,905,446	567,785 95	302,002	3,429,840	513,055 89
30	Orillia.....		4,420,480	8,063,136 57	435	3,243,094	101,667 24		2,182,445	110,935 41
31	Oshawa.....	1,557	32,146,638	2,381,701 39		28,491,967	6,969,833 37	378	17,456,142	4,330,602 93
32	Ottawa.....	27,777	15,117,799	90,892 75	36,770	17,671,808	3,019,382 05		16,431,226	3,095,253 15
33	Owen Sound.....		1,102,280	50,179 55		1,266,814	104,693 19		1,340,632	127,339 80
34	Paris.....	981,874	299,905 51	299,905 51	53,611	1,160,604	80,125 00		1,009,003	69,707 14
35	Parry Sound.....	74,180	1,647,023	1,220,696 06		1,536,940	284,778 76	419,443	1,408,726	292,790 15
36	Peterborough.....	833	8,165,207	9,968 73		9,317,442	1,339,973 43	860	9,753,757	1,497,178 41
37	Pictou.....		149,604	49,552 48		168,053	13,944 32		180,827	12,972 49
38	Port Arthur.....	104,106,965	2,095,466	434,135 04	127,218,858	2,777,869	317,999 58	77,564,504	1,875,892	229,143 14
39	Port Hope.....	601	453,444	5,153 07	105,691	472,748	47,342 67	207,912	421,295	45,652 75
40	Port McNicoll.....	65,799	89,381	482,775 50	37,629	68,618	2,706 11		33,840	530,111 33
41	Prescott.....	10,460,132	3,638,556	691,640 41	10,966,708	3,660,184	487,316 33	9,354,916	7,669,772	1,115,526 58
42	St. Catharines.....	504,833	5,527,165	351,811 29	293,488	6,646,914	805,185 75	169,974	3,040,212	498,268 63
43	St. Thomas.....	70,162	2,226,660	858,851 49	44,341	3,079,749	483,627 44	41,156,704	21,338,741	995,832 14
44	Sarnia.....	39,108,625	14,283,139	869,137 83	41,634,896	17,750,663	972,704 17	9,246,511	8,417,534	1,141,671 68
45	Sault Ste. Marie.....	11,090,917	6,340,452	122,255 16	8,348,639	7,543,725	906,740 11		2,130,061	208,439 80
46	Simcoe.....	664,416	1,334,573	175,901 02	490,564	1,705,360	135,539 35		3,083,051	373,178 15
47	Stratford.....		2,938,389	356,973 80		3,146,448	398,837 17		3,083,051	373,178 15
48	Sudbury.....		1,817,033	175,901 02		2,707,456	242,179 26		1,054,330	230,528 01
49	Tillsonburg.....	361,481	1,091,800	239,351 82	504,432	1,163,423	266,696 83	344,557	266,657,255	47,902,776 76
50	Toronto.....	1,522,355	242,213,317	41,729,836 29	1,532,191	266,865,149	46,925,053 18	1,601,804	266,657,255	47,902,776 76
51	Trenton.....	8,430	616,388	69,692 66		644,584	82,049 91	275	1,352,611	157,872 40

52 Wallaceburg.....	1,721,317	4,437,614	516,410 421	1,732,602	3,104,047	371,999 77	770,507	3,064,157	700,443 07
53 Welland.....	2,974,892	11,506,511	640,022 59	3,020,439	15,055,597	906,476 80	1,482,267	16,787,485	971,779 28
54 Welland.....	86,508	258,316	13,419 56	6,610	277,086	15,489 53	14,817	220,354	11,397 18
55 Whitby.....	56,497 150	44,433,222	9,459,687 20	63,206,373	83,390,508	18,536,364 92	54,634,546	65,569,470	14,211,512 02
56 Windsor.....	13,048	2,106,400	187,291 51	8,793	3,337,033	248,283 05	7,898	2,938,357	230,074 49
Woodstock.....									
Total.....	519,621,017	553,847,930	85,980,295 36	570,361,420	657,319,700	103,680,852 09	463,410,894	628,643,602	99,724,275 44

PROVINCE OF MANITOBA									
1 Brandon.....	74,584	1,684,175	189,677 34	35,547	2,489,530	249,661 00	56,569	2,427,901	269,481 22
2 Emerson.....	18,226,405	1,076,002	87,619 40	16,968,551	1,304,058	86,414 66	15,822,644	1,528,656	173,955 65
3 Gretna.....	46,829	186,426	14,090 02	19,726	138,785	10,744 83	15,579	212,499	12,944 34
4 Portage la Prairie.....	923,326	95,512 37	95,512 37	1,518,315	175,148 03	10,359,745 16	23,305	1,925,151	310,232 35
5 Winnipeg.....	50,605	48,950,520	9,050,669 17	60,684	54,237,509	10,359,745 16	23,305	48,702,403	9,483,039 78
Total.....	18,398,513	52,820,449	9,437,568 30	17,084,508	59,688,197	10,881,713 68	15,918,097	54,796,610	10,249,653 34

PROVINCE OF SASKATCHEWAN									
1 Moose Jaw.....	78,662	4,122,080	448,465 08	199,275	6,072,757	656,284 29	86,825	5,727,287	626,815 50
2 North Portal.....	10,424,317	1,033,375	62,187 80	10,416,696	1,314,980	83,773 72	10,590,321	847,382	91,395 13
3 Prince Albert.....	69,368	700,136	63,477 93	435,654	717,821	80,705 18	50,794	721,331	77,794 78
4 Regina.....		13,957,839	2,305,427 31		20,455,284	3,595,143 07		16,919,867	3,034,947 13
5 Saskatoon.....		6,831,933	751,937 48		9,291,872	1,033,737 55		7,174,489	956,959 33
Total.....	10,572,347	26,645,363	3,631,495 60	11,051,625	37,852,714	5,449,643 81	10,727,940	31,390,356	4,787,911 87

PROVINCE OF ALBERTA									
1 Calgary.....		12,167,854	2,242,352 25		18,991,749	3,189,875 89		24,025,002	3,662,600 00
2 Edmonton.....		8,725,598	1,647,715 32		16,978,474	2,033,759 76		9,686,420	1,943,998 50
3 Lethbridge.....		4,389,117	264,039 35	1,211,160	5,417,043	373,017 35	1,141,670	4,406,266	361,854 19
4 Medicine Hat.....		617,649	49,910 05		960,961	101,925 93		803,458	90,974 12
Total.....	948,037	25,900,148	4,204,016 97	1,211,160	36,348,227	5,748,578 93	1,141,670	38,921,146	6,059,426 81

PROVINCE OF BRITISH COLUMBIA									
1 Abbotsford.....	4,230,178	476,986	61,730 59	4,809,673	491,472	60,850 44	6,134,566	402,131	53,015 50
2 Cranbrook.....	1,743,127	520,251	68,187 74	1,028,368	631,303	82,264 39	890,681	836,719	74,618 23
3 Fernie.....	1,515,735	438,885	140,373 22	1,148,119	391,374	97,992 46	843,072	290,750	48,941 77
4 Grand Forks.....	64,520	245,591	95,907 48	58,023	47,269 40	48,264	7,489,295	128,174	21,841 08
5 Nanaimo.....	6,982,012	423,189	54,167 22	7,278,523	522,334	62,537 78	7,489,295	432,520	58,057 07
6 Nelson.....	455,685	529,050	96,483 20	7,335,061	528,390	98,705 02	1,464,583	280,324 20	362,665 20
7 New Westminster.....	12,760,754	2,151,132	364,231 54	17,706,925	2,429,060	436,562 30	3,100,362	562,665 20	66,034 58
8 Port Moody.....	27,050,065	259,757	44,262 16	119,583	2,296,588	43,231 33	1,441,241	3,100,362	66,034 58
9 Prince Rupert.....		1,077,674	191,451 34	19,741,484	1,076,922	182,872 06	1,409,531	1,409,531	252,931 68
10 Revelstoke.....		232,385	45,721 25		358,875	63,883 32	11,084,734	388,740	71,694 89
11 Rossland.....		895,698	84,563 77		732,172	84,705 63		48,717	9,587 65
12 Vancouver.....		74,002,310	13,050,236 20	181,222,494	77,582,326	13,545,023 18	127,214,949	79,447,707	14,122,354 02
13 Victoria.....		8,316,144	2,016,827 50	4,128,786	8,799,665	2,172,588 11	4,652,571	9,790,042	2,276,855 66
Total.....	211,569,087	89,569,052	16,314,143 18	237,583,500	94,041,183	16,978,615 42	178,551,135	98,271,217	17,898,924 28

No. 9—STATEMENT (by Provinces) showing the Value of Exports, of Total Imports for Home Consumption, etc.—*Concluded*

YUKON

No.	Ports	Fiscal Year ended March 31, 1928				Fiscal Year ended March 31, 1929				Fiscal Year ended March 31, 1930			
		Exports		Imports entered for Home Consumption		Duty		Exports		Imports entered for Home Consumption		Duty	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1	Dawson.....	223,924	170,396	39,653	88	516,084	29,906	433,518	163,918	33,400	96		
2	White Horse.....	1,283,715	192,186	42,900	94	2,013,311	75,737	2,845,533	349,427	88,936	64		
	Total.....	1,507,639	362,582	82,554	82	2,529,395	105,643	3,279,051	513,345	122,337	60		

RECAPITULATION BY PROVINCES

No.	Ports	Fiscal Year ended March 31, 1928				Fiscal Year ended March 31, 1929				Fiscal Year ended March 31, 1930			
		Exports		Imports entered for Home Consumption		Duty		Exports		Imports entered for Home Consumption		Duty	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1	Nova Scotia.....	52,333,249	27,746,453	3,514,903	71	57,679,784	32,821,746	62,579,160	37,429,661	3,594,209	99		
2	Prince Edward Island.....	1,265,888	1,734,583	186,619	58	956,112	1,808,713	2,521,560	1,604,792	178,759	06		
3	New Brunswick.....	71,521,545	55,227,984	4,004,245	19	72,851,601	24,704,939	61,206,430	26,239,284	4,044,867	32		
4	Quebec.....	362,860,712	305,065,264	44,528,477	83	417,586,970	320,549,122	345,602,133	330,429,503	52,344,645	89		
5	Ontario.....	519,621,017	553,847,930	85,960,295	36	570,361,420	657,319,700	463,410,894	628,643,602	99,724,275	44		
6	Manitoba.....	18,398,513	52,820,449	9,437,568	30	17,084,508	59,688,197	15,918,097	34,796,610	10,249,653	34		
7	Saskatchewan.....	10,572,347	26,645,363	3,631,495	60	11,051,625	37,852,714	10,727,940	31,390,356	4,787,911	87		
8	Alberta.....	948,037	25,900,148	4,204,016	97	1,211,160	36,348,227	1,141,670	38,921,146	6,059,426	81		
9	British Columbia.....	211,569,087	89,569,052	16,314,143	18	237,583,500	94,041,183	178,551,135	98,271,217	17,898,924	28		
10	Yukon.....	1,507,639	362,582	82,554	82	2,529,395	445,353	3,279,051	513,345	122,337	60		
	Total.....	1,250,598,034	1,108,919,808	171,864,320	54	1,388,896,075	1,265,639,894	1,144,938,070	1,248,239,516	199,004,011	60		
	Prepaid postal parcels duty received through P.O. Department.....						39,197			34,056	72		
	Grand Total.....	1,250,598,034	1,108,956,466	171,872,768	00	1,388,896,075	1,265,679,091	1,144,938,070	1,248,273,582	199,011,628	32		

NOVA SCOTIA

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	No.	In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	No.	No.
Amherst	53,846 02	28,268 01	27 00		82,141 03	1,928	21	471	2	1,872	36	14	21			11	4
Spring Hill	8,284 80	3,286 60			11,571 40	224		98		265	7						
Total	62,130 82	31,554 61	27 00		93,712 43	2,152	21	569	2	2,137	43	14	21			11	4
Annapolis Royal	3,765 15	2,510 68			6,275 83	218	9	129		250	14	4	9			121	118
Bridgetown	2,415 36	3,494 90	1,000 40	30 00	6,940 66	202		100	5	255	1	1				37	38
Clemensport	264 84	30 98			295 82	66	5			40	1	4	5			21	20
Total	6,445 35	6,036 56	1,000 40	30 00	13,512 31	486	14	229	5	545	16	9	14			179	176
Antigonish	8,523 26	3,189 33		3 50	11,716 09	271		145		468	7						
Arichat	651 99	215 96		7 00	874 95	88		12		20		1	20			404	417
St. Peters	14,961 76	1,396 04			16,357 80	102	15	17		109	4	10	16			273	266
Total	15,613 75	1,612 00		7 00	17,232 75	190	15	29		129	5	30	36			677	683
Baddeck	4,436 57	738 28		507 00	5,681 85	94	14	105		90		1	15			509	506
Iona	169 88	25 65			195 54	41				91			2			247	247
New Campbellton	6 40	0 53			6 93	5										67	68
Total	4,612 86	764 46		507 00	5,884 32	140	14	105		181		11	17			823	821
Barrington Passage	1,484 79	667 73			2,152 52	159	1	64		119		6	13			699	702
Clark's Harbour	701 82	211 54			913 36	107	22	62					30			479	481
Port LaPort	28 39	2 90			31 29	24							2			104	104
Total	2,215 00	882 17			3,097 17	290	23	126		119		6	45			1,282	1,287
Bridgewater	32,363 17	7,263 40			39,626 57	796	28	206		815	28	12	23			127	119

No. 10—STATEMENT of Customs-Excise Revenue and other Services, etc.—Continued

NOVA SCOTIA—Continued

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers Canada and United States		Coasting Vessels	
										In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	Ar- rived	De- part- ed
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Canso.....	8,594 66	1,389 49		233 90	10,218 05	251	9	40		46		68	69			1,774	1,805
Guysboro.....	256 38	256 18		25 00	537 56	57	8	28		19			7			412	404
Isaac's Harbour.....	254 50	73 32			327 82	28	9	12		12		22	31			169	160
Port Mulgrave.....	1,456 00	251 27			1,707 27	134	5	20		287	62		5			1,196	1,191
Sherbrooke.....	560 68	326 14			886 82	51	41	37				36	42			68	60
Total.....	11,122 22	2,296 40		258 90	13,677 52	521	72	138		364	62	126	154			3,619	3,620
Digby.....	9,708 80	2,949 60	2 00		12,660 40	394	34	139	1	347	30	31	37			575	582
Bear River.....	572 92	265 47			838 39	131	18	13		133	3	16	17			101	101
Freeport.....	962 09	357 24			1,319 33	71	23	34				20	20			287	291
Westport.....	584 03	102 28			686 31	89	25					32	25			323	330
Total.....	11,827 84	3,674 59	2 00		15,504 43	685	100	186	1	480	33	99	99			1,286	1,304
Halifax.....	2,503,903 36	345,232 72	68,586 76	8,081 78	2,925,804 62	31,145	43,789	1,913	800	11,054	14,062	1,525	1,760			2,309	2,090
Sheet Harbour.....	1,313 46	111 76			1,425 22	70	24					13	16			202	196
Total.....	2,505,216 82	345,344 48	68,586 76	8,081 78	2,927,229 84	31,215	43,813	1,913	800	11,054	14,062	1,538	1,776			2,511	2,286
Kentville.....	12,203 38	7,875 74	10 00	19 08	20,108 20	635		228	1	497	11	1					1
Aylesford Station.....	397 22	478 43			875 65	106		35		66		2					
Berwick.....	1,794 76	975 87			2,770 63	196		68		162	2						
Canning.....	436 52	391 94			828 46	117		33		77		1				16	18
Port Williams.....	4,324 21	396 26			4,720 47	194	14	21		175	1	6	10			18	14
Wolfville.....	3,560 03	6,457 14			10,017 17	320		141		329	10	6				20	25
Total.....	22,716 12	16,575 38	10 00	19 08	39,320 58	1,568	14	526	1	1,306	26	14	10			54	59
Liverpool.....	107,288 97	17,397 70			124,686 67	1,099	24	226		1,033	19	128	134			149	156
Lockport.....	3,526 97	423 69			3,950 66	159	7	24		112	1	26	25			29	24

Lunenburg.....	13,590 22	5,937 37	360 00	19,887 59	1,428	59	121	434	30	312	361	276	264
Chester.....	2,868 90	781 14		3,642 04	187	1	50	190	6	29	28	140	142
La Have.....	2,968 98	2,580 70	60 00	3,559 68	166	7	48	38	34	38	35	213	209
La Have.....	1,999 30	1,359 84	60 00	3,359 14	120		75	70	1	6	2	53	55
Mahe Bay.....	842 49	56 69	60 00	959 18	185		7			96	53	176	208
Riverport.....													
Total.....	20,261 89	10,662 74	480 00	31,407 63	2,056	67	301	694	37	477	482	858	878
Middleton.....	2,702 71	3,558 34		6,261 05	302		112	246	8				
New Glasgow.....	174,280 65	204,813 29	97 00	379,190 94	2,075		607	2,484	34			41	41
Merigomish.....	84 15	8 25		92 40	67			51	5				
Total.....	174,364 80	204,821 54	97 00	379,283 34	2,142		607	2,535	39			41	41
North Sydney.....	10,687 41	19,134 24	60 00	29,881 65	1,960	17,238	170	5,374	1,783	809	818	832	861
Grand Narrows.....	4 05	0 52		4 57	1		1	650	6				
Sydney Mines.....	15,479 54	3,385 19		18,864 73	572		106					832	861
Total.....	26,171 00	22,519 95	60 00	48,750 95	2,533	17,238	277	6,024	1,789	809	818		
Parrsboro.....	2,440 90	939 29	233 32	3,613 51	148	118	102	85		96	113	458	446
Pictou.....	9,055 59	7,775 76	18 10	16,849 45	423	15	190	430	73	22	23	598	588
Port Hawkesbury.....	15,974 99	1,851 46	87 50	17,913 95	347	55	123	332		93	90	311	321
Shelburne.....	5,001 56	1,613 78		6,615 34	301	5	86	220	8	133	137	73	73
Port Clyde.....	206 70	37 92		244 62	58		16	31	4	95	96	95	93
Sandy Point.....	11 58	1 16	200 00	212 74	30							61	61
Total.....	5,219 84	1,652 86	200 00	7,072 70	389	5	102	251	12	228	235	229	227
Sydney—	222,757 33	157,016 03	2 00	380,120 00	4,078	528	551	1	182	296	365	964	902
Glace Bay.....	192,469 53	20,835 30		123,304 72	1,441		214	1,569	16			36	32
Louisburg.....	1,898 82	249 89		2,148 71	81	130	30	33	103	91	112	307	294
New Waterford.....	4,160 64	904 15		5,064 79	333		35	385	7				6
Port Morien.....	63 52	7 27		70 79	12								
Total.....	331,349 73	179,012 64	2 00	510,709 01	5,945	658	830	5,508	308	387	477	1,313	1,234
Truro.....	111,431 01	55,969 72		167,400 73	3,152	2	407	2,584	79		2		
Weymouth.....	900 16	1,474 05		2,374 21	266	46	153		24	25	42	107	85
Meteghan River.....	1,322 51	725 62		2,048 13	112	5	47	185	16	7		51	69
Total.....	2,222 67	2,199 67		4,422 34	378	51	200	185	24	41	49	158	154

No. 10—STATEMENT of Custom-Excise Revenue and other Services, etc.—*Continued*NOVA SCOTIA—*Concluded*

Ports, Outports, and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
										In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	Ar- rived	De- part- ed
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Windsor—	24,255 95	12,651 71		218 00	37,125 66	615	194	435		534	21	160	182			187	169
Hantsport.....	959 18	1,223 75			2,182 93	104	5	73		91	14	1	5			26	25
Marland.....	35 75	129 74			165 49	38	7	13		26		5	7			23	21
Total.....	25,250 88	14,005 20		218 00	39,474 08	757	206	521		650	35	166	194			236	215
Yarmouth.....	63,931 97	17,920 51	1,292 54	453 24	83,598 26	3,562	4,407	416	107	1,020	3,609	330	293			304	349
Lower East Pubnico.....	218 23	32 17			250 40	42	18			20		66	62			157	158
Tusket.....	10,010 61	836 55			10,847 16	119				126							
Total.....	74,160 81	18,789 23	1,292 54	453 24	94,695 82	3,723	4,425	416	107	1,166	3,609	396	355			461	507
Nova Scotia Totals.....	3,534,209 97	960,776 17	70,929 76	11,099 96	4,637,005 99	61,867	66,985	8,609	917	39,433	20,332	4,773	5,292			16,242	16,011

PRINCE EDWARD ISLAND

Charlottetown.....	126,616 02	30,787 06	35,275 48	262 16	192,940 72	3,091	371	998	444	2,454	102	29	58			610	588
Montague Bridge.....	7,118 31	2,917 38			10,035 69	303	33	71		310	2	17	26			62	53
Souris.....	951 23	454 12		12 82	1,418 17	186	3	91		156		6	5			159	162
Total.....	134,685 56	34,158 56	35,275 48	274 98	204,394 58	3,580	407	1,130	444	2,920	104	52	89			831	803
Summerside.....	42,275 49	12,165 18			54,440 67	1,108	11	423		1,195	23	5	9			56	61
Port Borden.....	1,798 01	392 05			2,190 06	165		21		214	20					1	1
Total.....	44,073 50	12,557 23			56,630 73	1,273	11	444		1,409	43	5	9			57	62
Prince Edward Island, Totals.....	178,759 06	46,715 79	35,275 48	274 98	261,025 31	4,853	418	1,574	444	4,328	147	57	98			888	865

NEW BRUNSWICK

Bathurst.....	23,420 51	10,120 05	23,420 51	619	4	222	621	20	61	62	26
Caraquet.....	3,570 86	509 34	4,170 20	191	30	30	180	5	26	107	48
Shippegan.....	2,163 72	544 08	2,707 80	139	28	28	1,088	28	196	200	158
Total.....	29,155 09	11,263 47	40,418 56	969	4	280	1,088	28	196	200	232
Campbellton.....	135,821 89	27,767 79	163,589 68	828	16	249	911	12	6	14	84
Dalhousie.....	111,733 63	12,746 02	124,529 65	793	3	147	860	8	2	3	15
Total.....	247,615 52	40,513 81	288,129 33	1,621	19	396	1,771	20	8	17	99
Chatham.....	11,426 28	13,869 39	25,295 67	426	14	234	477	8	3	14	99
Buctouche.....	368 25	368 25	906 11	134	77	60	116	1	5	5	12
Richibucto.....	1,128 64	867 14	1,995 78	151	5	60	116	1	5	5	62
Total.....	13,092 78	15,104 78	28,197 56	731	19	371	732	8	4	19	176
Fredericton.....	835,794 14	70,655 06	1,122,045 70	3,446	604	119	3,115	89	11	11	11
McAdam Junction.....	39,816 97	1,738 90	43,097 35	698	34,471	42	17,246	24,922	11	3	16
Moncton.....	441,083 40	98,948 96	541,134 94	6,444	766	624	6,320	110	12	16	12
Hillsboro.....	6,834 65	7,204 86	14,039 51	149	80	80	122	1	13	16	3
Shediac.....	2,297 91	1,769 49	4,067 40	222	16	100	199	4	25	32	19
Total.....	450,216 05	107,923 31	559,241 85	6,815	782	804	6,641	115	25	32	38
Newcastle.....	9,213 60	5,125 76	14,390 36	327	3	133	365	11	3	3	25
St. Andrews.....	18,303 56	1,133 48	19,564 69	500	476	78	637	367	1,456	1,561	344
Campo Bello.....	1,317 23	151 64	1,468 88	189	105	1	992	992	885	885	234
Lord's Cove.....	1,075 72	144 31	1,274 03	98	27	40	847	794	847	794	92
North Head.....	1,263 04	295 64	1,608 68	166	518	43	478	462	478	462	205
Total.....	21,959 56	1,725 07	23,916 28	953	1,460	171	637	367	3,773	3,702	895
St. John.....	2,188,931 43	362,885 95	2,602,420 17	21,871	20,606	1,996	14,774	28,323	812	669	1,824
St. George.....	2,365 16	2,853 95	5,219 11	203	27	91	434	2	40	48	41
Sussex.....	18,799 47	9,380 51	28,179 98	423	163	163	577	10	10	10	42
Total.....	2,210,096 06	375,120 42	2,635,819 26	22,497	20,633	2,250	15,405	28,335	852	717	1,865
St. Stephen.....	62,326 72	31,370 88	96,815 91	1,590	137	195	663	194	28	25	156
Milltown.....	11,879 46	2,335 17	14,214 63	365	511	511	236	53	25	25	156
Total.....	74,206 18	33,706 05	111,030 54	1,955	648	195	899	247	28	25	156

[illegible]

No. 10—STATEMENT of Custom-Excise Revenue and other Services, etc.—Continued

QUEBEC—Concluded

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
	\$	cts.	\$	cts.	\$	No.	No.	No.	In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	Ar- rived	De- part- ed
St. Armand.....	22,382 90	1,230 08		3,687 20	27,300 18	1,470	31,139	8	4,555	26,171						
Philipsburg.....	23,146 44	1,411 63			24,558 07	441	549		149							
Total.....	45,529 34	2,641 71		3,687 20	51,858 25	1,911	31,688	8	4,704	26,171						
St. Hyacinthe.....	229,949 53	70,971 63	20,246 85	124 70	321,292 71	3,546		1,053	3,289	45						
Marville.....	22,327 02	19,415 82			41,742 84	864		114	136	1						
St. Césaire.....		2,605 81			2,605 81			241								
Total.....	252,276 55	92,993 26	20,246 85	124 70	365,641 36	4,410		1,408	3,425	46						
St. Johns.....	652,945 34	178,609 42	1,201 38	5,856 60	838,612 74	6,505	1,699	838	82	82			192	284	1	6
Anticosti.....	43,380 24	1,947 92		178 66	45,415 82	1,501	51,975	4	20,435	54,332						
Clarenceville.....	43,421 66	278 93		255 00	45,654 90	32	75	31	3							
Cowansville.....	105,169 94	18,381 39		60 00	123,610 43	1,491		151	1,250	28						
Farnham.....	84,410 70	14,392 26	32,736 97	61 85	131,351 58	1,514		208	1,575	20						
Fredericburg.....	84,613 78	383 26		25 00	1,222 14	121	464	59	24	2						
Laclolle.....	111,822 42	22,028 48		15,266 38	148,817 18	2,314	25,048	31	13,776	20,677						
Noyan.....	1,852 18	137 08		12 20	2,021 46	201	4,865	2	473	1,590						
Total.....	1,000,423 76	235,988 84	33,938 35	21,655 39	1,292,006 34	13,679	84,126	1,324	385	41,895			192	284	1	6
Shawinigan Falls.....	192,228 98	36,129 82	79 00	11 00	228,448 80	3,020		374	5	4,210						
Grand Mere.....	103,611 81	15,343 66	161 88	10 04	119,127 35	1,409		236	3	1,573						
Total.....	295,840 79	51,473 48	240 88	21 00	347,576 15	4,429		610	8	5,783						
Sherbrooke.....	720,379 11	240,222 34	3,311 42	657 30	964,570 17	10,040	729	1,736	150	10,129						
Armstrong.....	5,155 55	1,161 90		234 00	6,551 45	258	654	6								
Coman's Mills.....	1,625 61	278 36			2,103 97	170	268	4								
Richmond.....	157,935 69	31,506 47		133 97	189,576 13	1,434	255	255		3						
St. Camille.....	3,999 99	669 53		283 50	4,920 02	84	29	22								
Theford Mines.....	80,774 21	16,355 27	1,607 52	30 00	98,767 00	1,353	29	446	13	1,399						
Victoriaville.....	88,021 16	88,407 21	390 56	42 00	156,860 93	1,183	717	717	5	1,275						
Windsor Mills.....	24,175 44	3,613 22			27,788 66	432		72		539						
Total.....	1,082,236 76	362,211 39	5,309 50	1,380 77	1,451,138 33	14,944	1,671	3,268	168	15,682						

Sorel.....	58,450 07	19,126 92	3,022 25	63 50	80,662 74	1,021	2	398	53	1,081	15	3	23	22	727	742
Nicolet.....	13,031 97	5,870 66			18,902 63	431	259	174		315	1					
Total.....	71,482 04	24,997 58	3,022 25	63 50	99,565 37	1,452	261	572	53	1,396	16	5	3	23	727	742
Sutton.....	44,864 93	6,316 04	248 00	4,769 10	56,198 07	1,108	14,614	197	3	3,356	75,316					
Abercorn.....	2,742 09	370 97		100 00	3,213 06	186	942	12		19	3					
Highwater.....	4,415 23	979 83		264 80	5,659 86	251	741			44						
Mansonville.....	1,261 52	758 43		30 00	2,049 95	134	434	59		69	70					
Total.....	53,283 77	8,425 27	248 00	5,163 90	67,120 94	1,739	16,731	268	3	3,488	75,389					
Three Rivers.....	344,924 10	88,624 29	6,200 09	124 87	439,963 35	6,049	164	1,030	20	7,104	75	56	165	172	1,487	1,476
La Tuque.....	76,446 14	7,351 35			83,797 49	829		161		1,086	7					
St. Boniface.....		1,465 68	16,750 00		18,215 68			35	146							
Total.....	421,370 24	97,441 32	23,040 09	124 87	541,976 52	6,878	164	1,226	166	8,190	82	56	165	172	1,487	1,476
Valleyfield.....	289,306 61	71,920 50	5,520 84	234 70	366,982 65	2,364		326	25	2,267	40				15	15
Quebec Totals.....	52,335,370 22	21,359,538 13	45,009,063 03	182,855 53	118,886,716 91	487,414	238,455	54,155 34	970	301,062	326,565	1,570	1,370	1,244	1,510	10,192 10,372

ONTARIO

Amherstburg.....	60,429 96	30,533 50	706,824 63	2,017 20	799,805 29	798	42,524	129	775	1,200	1		5,287	5,240	52	57
Essex Centre.....	20,547 14	5,964 16			26,511 30	679		124		775	8					
Kingsville.....	22,710 08	9,797 04	1,101 40		33,608 52	679	4,090	281	198	800	17		388	385	209	209
Leamington.....	368,095 87	11,466 31	21,641 27	219 40	401,422 85	2,115	2,587	189	73	2,068	12		85	85	378	376
West Dock.....	2,160 75	242 59			2,403 34	253	103						206	197	210	210
Total.....	473,943 80	58,003 60	729,567 30	2,236 60	1,263,751 30	4,516	49,314	693	1,046	4,844	38		5,966	5,907	849	852
Belleville.....	591,015 82	210,989 80	1,443,423 71	10,629 22	2,256,058 55	5,399	97	1,178	5,409	6,093	238			67	67	48
Bowenville.....	99,407 49	114,103 04		18 16	213,528 69	1,925		255		1,395	11					
Brantford.....	634,460 63	276,641 06	13,953 48	1,388 34	926,443 51	15,502	670	1,487	159	14,026	73					
Bridgeburg.....	897,942 86	150,243 35	2,861 36	21,619 11	1,072,666 68	21,104	90,800	549	20	29,547	254,689		2,132	2,651	27	4
Brookville.....	130,715 53	45,104 47		294 69	176,114 69	3,443	533	408		2,933	29		873	891	306	300
Chatham.....	593,122 30	85,192 25	1,574 54	926 87	680,815 96	9,199	7	985	42	7,241	115		10	10	35	41
Blenheim.....	14,202 89	2,517 18			16,720 07	445		61		1,047	4					
Erieau.....	162,253 16	56 62		4 80	162,314 58	516	1,921	10		1,44	69		231	231	23	15
Ridgeway.....	10,533 19	2,678 69			13,211 88	880	1	173		937	7					
Tilbury.....	46,932 97	1,300 21		60 00	48,293 18	990		58		775						
Total.....	827,044 51	91,744 95	1,574 54	991 67	921,355 67	12,000	1,929	1,287	42	10,044	204		241	241	58	56

No. 10—STATEMENT of Custom-Excise Revenue and other Services, etc.—Continued

ONTARIO—Continued

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes		Excise Duties		Sundry Collections		Total Revenue		In- port En- tries	Ex- port En- tries		Ex- cise Tax En- tries		Ex- cise Duty En- tries		Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	No.	No.	No.	No.	In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	Ar- rived	De- part- ed
Cobourg.....	341,246 31	26,327 64	14,606 72	1,237 10	383,417 77	1,777	4,424	4,732	555	34	3,781	7,812					3,781	7,812			710	708	14	15
Collingwood.....	33,573 15	23,914 90		725 00	58,213 05	1,777			585								1,779	883			17	18	58	59
Cornwall.....	203,703 97	59,731 48	610 84	61 40	264,107 69	3,650	7,554	521	6	6	4,940	7,767					4,940	7,767			7	7	78	75
Aulsville.....	6,464 76	824 86			7,289 62	206	25	42			148	2					148	7					58	58
St. Regis.....	171 21	10 18			181 39	32	51																	
Total.....	210,339 94	60,566 52	610 84	61 40	271,578 70	3,888	7,630	563	6	6	5,088	7,776					5,088	7,776			7	7	136	133
Fort Frances.....	251,323 06	32,628 37	9,257 80	2,875 03	306,084 26	5,288	25,475	163	24	24	9,568	37,398					9,568	37,398			201	192		
Rainy River.....	20,140 15	1,477 31			21,617 46	443	290	20			5,908	4,310					5,908	4,310			177	189	14	17
Total.....	281,463 21	34,105 68	9,257 80	2,875 03	327,701 72	5,731	25,765	183	24	24	15,176	41,709					15,176	41,709			378	381	14	17
Fort William.....	1,458,319 61	147,100 98	153,967 56	937 43	1,760,325 48	7,520	412	633	444		5,769	3,544	1				5,769	3,544	1		485	412	755	751
Galt.....	377,338 99	190,570 32		99 82	568,009 13	6,326	87	1,097			6,933	115					6,933	115						
Ayr.....	71,740 71	2,708 74			74,449 45	313		57			326						326							
Preston.....	105,444 68	104,883 90	6,803 35	50 00	217,191 83	3,073	3,073	492	22		3,311	12					3,311	12						
Total.....	554,524 38	298,172 95	6,803 35	149 82	859,650 51	9,712	87	1,646	22		10,570	127					10,570	127						
Gananoque.....	56,409 98	9,072 75		512 50	65,995 23	1,559	204	290			1,211	14					1,211	14			6,700	6,689	72	74
Rockport.....	2,381 94	233 22		246 00	2,861 16	93	27	1													1,659	1,630	59	60
Total.....	58,791 92	9,305 97		758 50	68,856 39	1,652	231	291			1,211	14					1,211	14			8,359	8,319	131	134
Goderich.....	44,143 90	14,573 96			58,931 86	1,235	43	455	1		1,454	295					1,454	295			33	46	58	33
Clinton.....	14,849 45	7,326 98	4 00		22,176 43	383	14	219			908	7					908	7						
Kincardine.....	45,797 80	26,183 17		470 00	72,450 97	848	12	190			857	12					857	12			13	12	10	9
Southampton.....	18,292 33	17,079 35			35,371 68	583		92			553	6					553	6			2	2	4	4
Wingham.....	15,118 09	18,030 06			33,148 15	688		308			774	7					774	7						
Total.....	138,201 57	83,193 52	4 00	680 00	222,079 09	3,937	69	1,267	1		4,686	327					4,686	327			48	60	72	46

Owen Sound.....	122,115 26	93,044 54	1,717 06	47 20	217,524 06	2,400	918	222	2,801	1,210	32	10	312	319
Warton.....	5,224 54	5,337 94			10,562 48	215	150		202	2	5	5	3	10
Total.....	127,339 80	98,382 48	1,717 06	47 20	228,086 54	2,705	1,068	222	3,003	1,212	37	15	315	329
Paris.....	69,707 14	119,708 36		30 00	189,445 50	1,667	176		1,638	10				
Parry Sound.....	12,629 40	7,343 59		205 80	20,178 79	610			689	16	22	22	82	82
Britt.....	203,285 42	76 25			203,361 67	198	406		103	2	76	75	3	4
Depot Harbour.....	24,535 04	22 48			24,557 52	102	122		7,894	9,969	130	137	9	2
Key Harbour.....	52,340 29				52,340 29	21					19	14		5
Total.....	292,790 15	7,442 32		205 80	300,438 27	931	126		8,686	9,987	247	248	94	93
Peterboro.....	1,497,178 41	345,748 73	450 96	696 50	1,844,074 60	12,970	1,043	9	13,692	73				
Pictou.....	12,972 49	12,482 29			25,454 78	588	430		665	7	14	14	149	147
Port Arthur.....	299,143 14	79,225 23	15,013 00	1,068 10	324,449 47	3,720	403	70	3,575	1,164	416	500	772	815
Port Hope.....	45,652 75	18,187 72	352 20	70 00	64,262 67	1,266	138	14	1,528	13	58	59	7	7
Port McNicoll.....	318 08	212 22		132 60	662 90	229	45		73	2,747	34	50	179	163
Prescott.....	530,111 33	73,631 57	220,705 40	1,470 95	825,919 25	3,973	9,499	311	6,398	8,949	1,289	938	454	471
St. Catharines.....	796,107 33	342,827 16	23,927 00	438 42	1,163,299 91	9,609	299	1,482	10,069	47	2	2	1	1
Port Dalhousie.....	28,136 59	257 60			28,394 19	326	21	24	285	4	18	35	552	545
Thorold.....	291,282 66	37,917 42			329,200 08	5,122	8	258	7,607	15	12	100	90	1
Total.....	1,115,526 58	331,002 18	23,927 00	438 42	1,520,894 18	15,057	328	1,764	17,961	66	32	137	643	547
St. Thomas.....	370,939 37	82,577 71	1,092 91	680 00	455,289 99	5,887	847	75	9,776	69				
Aylmer.....	16,127 29	5,637 82			21,815 11	837	142		855	17				
Fort Stanley.....	111,201 97	2,531 95			113,733 92	338	408	9	881	6,079	114	113	89	93
Total.....	498,268 63	90,797 48	1,092 91	680 00	590,839 02	7,162	408	998	11,512	6,165	114	113	89	93
Samia.....	964,616 85	1,424,188 95	750 00	7,575 23	2,397,131 03	16,609	42,605	141	81,294	273,633	18,209	18,256	1,028	1,012
Courtright.....	6,233 57	217 14		800 09	7,250 71	231	8		293	3	531	532	34	35
Petrolia.....	24,963 68	5,116 25	1 00	10 00	30,095 93	839	1,550		1,205	6				
Total.....	995,819 10	1,429,522 34	751 00	8,385 23	2,434,477 67	17,679	44,155	1,008	82,551	273,642	18,740	18,788	1,062	1,047

No. 10—STATEMENT of Customs-Excise Revenue and other Services, etc.—Continued

ONTARIO—Concluded

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
									In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	Ar- rived	De- part- ed
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Sault Ste. Marie.....	1,051,537 77	289,787 96	15,178 00	2,309 20	1,358,812 93	7,717	10,985	506	29	10,783	13,753		1,166	1,170	866	847
Blind River.....	10,450 99	5,325 06			15,776 05	296	122	60		219	6		76	81	76	72
Cockburn Island.....	400 85	163 02			563 87	24	9						44	49	90	86
Gore Bay.....	771 95	829 25			1,601 20	74	11	60		34			11	11	188	170
Little Current.....	74,865 08	1,740 09			76,605 17	256	7	91		193	4		38	32	187	195
Thessalon.....	3,645 04	832 52			4,477 56	171	262	42		146	37		78	69	167	169
Total.....	1,141,671 68	298,677 90	15,178 00	2,309 20	1,457,836 78	8,538	11,411	768	29	11,375	13,800		1,413	1,412	1,554	1,539
Simcoe.....	201,282 99	40,346 76	25 00	1,387 10	243,041 85	2,395		467	1	2,390	18				28	21
Port Dover.....	7,156 81	5,070 86		896 00	13,123 67	470	1,120	84		885	6		348	406		
Total.....	208,439 80	45,417 62	25 00	2,283 10	256,165 52	2,865	1,120	551	1	3,275	24		348	406	29	21
Stratford.....	243,787 70	146,285 70	1,286 95	88 00	391,448 35	5,615		1,086	21	5,611	40					
Listowel.....	55,439 17	20,591 75			76,030 92	1,713		191		1,996	9					
Mitchell.....	9,076 59	4,961 72			14,038 31	509		145		509	4					
St. Mary's.....	64,874 69	36,656 45			101,531 14	1,308		226		1,742	5					
Total.....	373,178 15	208,495 62	1,286 95	88 00	583,048 72	9,145		1,648	21	9,888	58					
Sudbury.....	199,310 76	164,155 77	40,500 00	10 00	403,976 53	4,115		640	54	4,132	55					
Coniston.....	15,632 73	3,588 60			19,201 33	384		10		367	3					
Copper Cliff.....	355,054 40	28,641 76			383,696 16	1,925		17		2,038	3					
Espanola.....	6,439 17	1,070 77			7,509 94	357		30		308	12					
Total.....	576,437 06	197,436 90	40,500 00	10 00	814,383 96	6,781		667	54	6,845	73					
Tillsonburg.....	60,408 47	12,119 09		35 26	72,562 82	1,503		285		1,417	11					7
Port Burwell.....	170,119 54	384 01		15 60	170,519 15	522		69		1,315			16	20	9	
Total.....	230,528 01	12,503 10		50 86	243,081 97	2,115		354		2,732			16	20	9	7

Toronto.....	43,371,248	21	13,096,387	57	1,982,317	02	61,301	30	58,511,254	10	375,928	5,796	34,775	9,738	166,062	10,755	1,360	1,454	1,304	1,250
Acton.....	31,604	20	6,496	51			50	00	38,100	71	1,191	149			1,141	149				
Barrie.....	64,070	58	18,634	10			4	00	82,754	68	1,598	250			1,690	18				
Brantford.....	144,017	76	50,426	20					194,447	96	2,300	418			3,152	13				
Georgetown.....	63,145	07	9,964	91					72,769	98	1,334	213			2,417	6				
Newmarket.....	62,137	26	44,914	67					107,051	93	2,300	294			2,417	21				
Orangeville.....	27,965	24	14,435	38					42,400	62	2,451	245			1,440	14				
Port Credit.....	40,476	73	9,154	38					49,630	93	881	201			1,697	17				
Stratford.....	35,166	16	12,810	67			50	00	38,109	76	874	46			1,304	5				
West Toronto.....	4,062,945	55	1,262,605	20			386	57	4,175,942	39	31,502	104			28,712	631				
Total.....	47,902,776	76	13,365,517	41	1,982,317	02	61,791	87	63,312,403	06	419,235	5,900	36,688	9,738	209,092	11,481	1,360	1,454	1,304	1,250
Trenton.....	137,872	40	25,819	46	1,377	00	250	10	185,318	96	3,246	1	178	2	3,297	30	8	16	60	58
Wallaceburg.....	700,443	07	11,206	31			713	50	712,362	88	1,431	8,119	201		1,897	16	88	85	167	166
Welland.....	525,010	15	99,227	06	13,455	33	390	20	638,082	74	7,335	2	562	21	10,360	67	52	98	146	25
Port Colborne.....	446,769	13	34,342	18	153,193	32	542	10	634,846	73	4,258	926	275	384	10,688	41	489	545	644	607
Total.....	971,779	28	133,559	24	166,648	65	932	30	1,272,929	47	11,593	928	837	405	21,046	108	541	643	790	632
Whitby.....	11,397	18	7,948	74			15	00	19,360	92	720	7	297		973	9	4	6	5	4
Windsor.....	4,570,559	77	1,839,443	88	81,256	03	249,535	09	6,740,794	77	50,272	59,739	2,544	389	282,504	514,308	512	512	317	291
Belle River.....	348,001	98	633	71					4,679	69	1,138		663		213	4	16	15	14	14
Sandwich.....	9,290,394	93	71,004	58	24,196	11			441,202	03	1,490	47,475	231	165	1,466		4,008	3,970	67	73
Walkerville.....	14,211,512	02	1,874,101	08	4,536,222	01	29,201	21	15,730,429	23	68,030	51,244	1,333	6,606	15,534	2,986	4,076	3,300	200	203
Total.....	14,211,512	02	3,785,183	25	4,641,674	15	278,736	30	22,917,105	72	119,930	158,453	4,171	7,160	299,717	517,298	8,612	7,797	598	582
Woodstock.....	224,947	63	97,928	23			383	00	322,658	86	6,183	108	744		5,504	71				
Norwich.....	5,126	86	3,811	57					12,387	23	412		176	77	406	5				
Total.....	230,074	49	101,139	80			383	00	335,046	09	6,595	108	920	77	5,910	76				
Total.....							471,386	30	148,363,391	49	1,041,298	524,862	95,731	33,106	1,364,472	1,445,556	156,690	56,298	13,630	13,062
																	2			

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Brandon.....	229,450 40	62,931 71	13,571 00	374 46	306,827 57	3,963	24	741	60	3,424	84
Bannerman.....	4,805 47	1,025 53			5,831 00	227	129	3		373	
Cartwright.....	4,698 03	1,465 94			1,163 62	58	1	22		1,458	2
Deloraine.....	4,063 17	1,385 20			5,640 18	191	5	70		139	13
Killamey.....	4,929 62	1,951 91			8		21	48		175	8
Melita.....	4,400 93	2,953 73		40 00	6,454 82	165	9	51		93	9
Souris.....	7,403 20	3,493 00			6,654 36	195				282	
Virden.....	13,250 70	4,957 44		50 00	10,896 29	319		81		480	10
					18,238 14	455					
Total.....	269,481 22	78,189 30	13,571 00	464 46	361,705 98	5,573	189	1,087	60	4,859	1,589

No. 10—STATEMENT of Customs—Excise Revenue and other Services, etc.—Continued

MANITOBA—Concluded

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	No.	No.
Emerson.....	173,955 65	17,175 95		4,475 54	195,607 14	2,768	21,828	19	3,753	55,306						
Gretna.....	9,601 41	2,729 27			12,330 68	391	86	31	106	344						
Hasket.....	3,342 93	418 32			3,761 25	175	30		214	312						
Total.....	12,944 34	3,147 59			16,091 93	566	116	31	383	656						
Portage la Prairie.....	28,549 64	17,192 68	6 00	8 48	45,756 80	1,154		422	3	25						
Dauphin.....	19,307 33	10,030 31		50 00	29,467 64	732		918	1,207	25						
The Pas.....	262,315 38	38,891 95			301,207 33	1,052		184	1,007	11						
Total.....	310,232 35	66,134 94	6 00	58 48	376,431 77	2,938		824	3	61						
Winnipeg.....	9,465,859 10	2,625,970 00	873,156 00	11,762 40	12,976,747 50	115,793	82	6,914	62,014	1,576					1	1
Crystal City.....	769 71	584 86			1,347 57	90	1	19	37							
Sprague.....	16,409 46	2,309 95		84 00	18,803 41	531	294	26	2,591	3,580					4	5
York Factory.....	8 51	0 15			8 66											
Total.....	9,483,039 78	2,628,864 96	873,156 00	11,846 40	12,996,907 14	116,414	347	6,959	64,642	5,106					5	6
Manitoba, Totals.....	10,249,652 34	2,793,512 74	886,733 00	16,844 88	13,946,743 96	128,309	22,486	8,920	76,572	62,718					5	6

SASKATCHEWAN

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	No.	No.	No.	In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	No.	No.
Moose Jaw.....	361,994 09	117,737 75	31,908 00	1,013 61	512,713 45	6,218	11	1,307	4,192	67						
Bengough.....	520 09	150 34		60 00	731 03	35	16									
Big Muddy.....	2,569 50	382 29		169 10	3,120 89	115	21	2								
Climax.....	8,108 39	2,355 85		92 15	10,556 39	279	13	51	53							
Maple Creek.....	11,781 97	3,716 34			15,498 31	200	67	67	177							
Shanawon.....	27,572 12	8,706 61			36,278 73	464	100	100	416	14						
Swift Current.....	123,446 65	26,668 66		25 00	150,140 31	1,730	138	138	1,514	18						
West Poplar River.....	3,393 67	551 97		50 00	4,000 64	128	28	2								
Weyburn.....	85,522 81	15,230 30			100,753 11	1,524	98	98	1,408	30						
Willow Creek.....	1,900 61	469 62			2,370 23	96	19	1								
Total.....	620,815 50	175,969 73	31,968 00	1,409 86	836,163 09	10,789	108	1,766	7,820	129						

North Portal.....	50,602 18	5,770 66	1,080 60	57,453 44	1,140	15,476	11	3,053	29,288
Estevan.....	35,812 38	24,931 31	223 64	70,664 93	269	20	349	16	803
Marienthal.....	4,980 57	1,319 09		6,299 66					
Total.....	91,395 13	32,021 06	1,304 24	134,418 03	2,361	15,510	360	16	3,856
Prince Albert.....	53,512 73	101,599 80	134 05	205,138 13	1,351		632	112	1,256
Humboldt.....	11,118 03	5,939 77		17,058 40	7		203		203
Melfort.....	13,163 42	6,979 82	2 00	20,145 24	584		160		308
Total.....	77,794 78	114,519 39	134 05	242,341 77	2,355		995	112	1,826
Regina.....	2,948,908 99	535,045 11	2,141 70	3,813,340 26	25,581	18	1,851	700	24,257
Metville.....	1,955 96	5,489 70		21,451 66	411		90		380
Northgate.....	3,230 29	1,653 77	72 60	4,956 66	262	176	8		6
Yorkton.....	66,852 39	19,855 17	5 50	86,713 06	1,279		311		1,291
Total.....	3,034,047 13	562,049 75	2,219 80	3,926,461 64	27,533	194	2,260	700	25,934
Saskatoon.....	906,757 77	260,814 23	1,013 73	1,211,158 02	15,492		1,540	81	10,472
North Battleford.....	50,201 56	25,908 01	725 02	81,634 59	1,176		405	8	1,117
Total.....	956,959 33	286,722 24	1,738 75	1,292,792 61	16,668		1,945	89	11,589
Saskatchewan, Totals.....	4,787,911 87	1,471,282 17	6,806 70	6,432,177 14	59,706	15,812	7,326	976	51,025

ALBERTA

Calgary.....	3,087,948 84	1,057,402 25	3,380 13	4,541,234 52	34,362		3,148	1,189	23,495	514
Banff.....	29,903 35	4,915 05		34,818 41	542		72		344	5
Drumheller.....	27,226 53	8,205 15	25 00	35,436 68	911		108		545	9
Orocks.....	466,122 71	31,905 40		498,028 11	3,523		32		2,687	7
Red Deer.....	51,302 32	11,563 49		62,865 81	1,210		189		1,085	17
Total.....	3,662,503 75	1,113,991 35	3,405 13	5,172,403 53	40,548		3,549	1,189	28,156	552
Edmonton.....	1,838,703 44	612,407 36	1,600 87	2,731,534 56	23,010		3,254	679	13,881	161
Camrose.....	28,901 95	13,016 29	11 00	41,929 24	887		243		722	17
Lloydminster.....	18,086 65	7,344 65		25,431 30	433		74		533	11
Wainwright.....	38,306 46	4,432 32	5 17	42,743 95	432		58		449	8
Total.....	1,943,998 50	637,200 62	1,617 04	2,841,639 05	25,662		3,629	679	15,585	197
Lethbridge.....	214,223 64	266,654 47	455 53	625,833 14	3,990	66	661	254	2,921	47
Okotoks.....	77 04	77 04		406 88	23	7			448	3
Blainmore.....	18,188 33	5,823 25		24,011 58	393		124		223	13
Cardston.....	11,436 55	3,581 28		15,017 83	324		109		233	13
Couts.....	95,593 77	24,397 43	23 30	120,014 50	2,563	1,666	36		2,438	9,660
MacLeod.....	22,082 06	4,445 60	7 30	26,534 96	450		72		537	36
Total.....	361,854 19	304,979 07	486 13	811,818 89	7,749	1,739	1,002	254	6,567	9,759
Medicine Hat.....	90,974 12	37,520 26	397 08	128,891 46	2,054		292		1,877	27
Alberta, Totals.....	6,659,330 56	2,003,691 30	5,905 38	8,954,752 93	76,013	1,739	8,472	2,122	52,165	10,535

No. 10—STATEMENT of Customs-Excise Revenue and other Services, etc.—Continued

BRITISH COLUMBIA

Ports, Outports and Preventive Stations	Import Duties	Excise Taxes		Excise Duties		Sundry Collections		Total Revenue		Im- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels	
	\$ cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	No.	No.	No.	In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed	No.	No.
Abbotsford.....	53,015 50	19,546 35				208 78		72,770 63	1,204	4,830	314		1,359	7,489						
Cranbrook.....	52,284 40	39,490 81	12,206 00		965 40			104,946 61	1,098	1	323	21	1,208	5						
Kingsgate.....	16,481 87	4,695 45						21,177 32	981	3,076	6		1,091	7,618						
Rykers.....	5,851 95	687 14						6,539 10	170	63										
Total.....	74,618 23	44,873 40	12,206 00		965 40			132,663 03	2,249	3,140	329	21	2,299	7,623						
Fernie.....	43,846 10	39,063 35	14,305 00		214 30			97,428 75	882	50	274	25	757	124						
Newgate.....	5,095 67	683 35						5,779 02	207	277	7		687	356						
Total.....	48,941 77	39,746 70	14,305 00		214 30			103,207 77	1,088	327	281	25	1,444	480						
Grand Forks.....	17,655 13	2,789 91			716 53			21,141 57	240		64		635	41						
Bridgesville.....	935 02	126 99						1,062 91	118	9			597	483						
Carson.....	589 18	120 76						709 94	66	81			2,627	830						
Cascade City.....	1,099 88	220 70			38 00			1,355 58	98	50			1,450	1,725						
Midway.....	1,391 93	1,164 12			31 00			2,617 05	107	29	29		165	98						
Myncester.....	172 04	86 42			19 74			258 20	34	2			175	229						
Total.....	21,841 08	4,498 90			805 27			27,145 25	663	171	93		3,832	5,203						
Nanaimo.....	26,256 03	13,943 83	594 10		710 50			41,504 46	1,132	319	347	84	528	10	303	411			2,550	
Chemainus.....	4,099 76	7,651 32			103 80			11,854 88	186	350	38		116	5	460	521			532	514
Cumberland.....	5,374 75	10,338 19						3,211 04	144	2	71		88							
Duncan's Station.....	1,320 99	43 41						15,712 94	420		210		244	6						
Kildonan.....	1,554 71	44 12			216 60			1,581 00	43	466									599	585
Ladysmith.....	6,248 95	11,220 72			274 80			2,373 63	100	116	59		53	2	484	496			1,796	
Port Alberni.....	12,429 98	2,682 78			35 40			17,125 07	231	74	182		163	5	101	82			401	400
Union Bay.....					126 00			15,238 76	163	109	90		136	7	134	132			893	894
Total.....	58,057 07	49,063 51	594 10		1,487 10			109,201 78	2,419	1,436	997	84	1,328	35	1,631	1,847			6,845	6,739

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No. 10—STATEMENT OF Customs-Excise Revenue and other Services, etc.—*Concluded*

YUKON

Ports, Outposts and Preventive Stations	Import Duties	Excise Taxes	Excise Duties	Sundry Collections	Total Revenue	Im- port En- tries	Ex- port En- tries	Ex- cise Tax En- tries	Ex- cise Duty En- tries	Railway Reports		Sea-going Vessels		Vessels trading on lakes and rivers between Canada and United States		Coasting Vessels		
										In- wards	Out- wards	Ar- rived	De- part- ed	Ar- rived	De- part- ed		No.	No.
Dawson.....	\$ cts. 33,386 97 3 99	\$ cts. 3,658 56 0 47	\$ cts. 2,300 60	\$ cts. 518 45	\$ cts. 39,874 58 4 46	No. 446 2	No. 40 4	No. 44	No. 14	No. 953	No. 96	No.	No.	No. 17 22	No. 22	No. 60 54	No. 54	
Forty Mile.....																		
Total.....	33,400 96	3,659 03	2,300 60	518 45	39,879 04	448	44	44	14	953	96			17	22	60	54	
White Horse.....	85,899 22	7,857 52	2,534 58	2,018 80	98,310 12	982		20		3,885	184			1	1	80	81	
Carcross.....	2,270 89	165 49			2,436 38	260				1,547	88					92	92	
White Pass.....	766 53	55 33			821 86	159				372								
Total.....	88,936 64	8,078 34	2,534 58	2,018 80	101,568 36	1,401	339	20		5,804	272			1	1	172	173	
Yukon, Totals.....	122,337 60	11,737 37	4,855 18	2,537 25	141,447 40	1,849	383	64	14	6,757	368			18	23	232	227	
Department of National Revenue.....		186,239 70		6,654 88	192,894 58													
Preventive Service.....				611,870 21	8,413 74													
British Post Office Parcels	7,616 72	797 02																

RECAPITULATION BY PROVINCES

Nova Scotia.....	3,594,209 97	969,776 17	70,920 70	11,099 06	4,637,005 90	61,867	66,955	8,699	917	39,433	20,332	4,773	5,202				16,242	16,011
Prince Edward Island.....	178,759 06	46,715 79	35,275 48	274 98	261,025 31	4,833	418	1,574	444	4,329	147	57	98				888	865
New Brunswick.....	4,043,769 06	717,769 22	270,539 85	17,415 24	5,049,691 63	43,931	69,559	6,316	799	55,571	66,636	4,886	4,715				3,501	3,724
Quebec.....	52,335,270 22	91,359,508 13	45,009,083 03	182,855 53	118,886,716 91	437,414	258,405	54,155	84,076	301,062	326,565	1,570	1,244				1,510	10,192
Ontario.....	39,224,269 40	51,724,061 84	16,493,740 98	471,386 36	118,863,391 49	1,041,431	524,802	98,731	33,106	1,364,472	1,445,556	2	1	156,696	56,298	13,696	13,062	6
Manitoba.....	10,249,633 34	2,793,532 74	886,733 00	15,844 88	13,946,743 96	128,369	22,480	8,920	4,857	76,572	62,718						5	
Saskatchewan.....	4,781,811 87	1,111,282 17	406,176 40	6,806 76	6,432,177 14	59,706	15,812	7,326	976	51,925	37,959						3	
Alberta.....	6,631,539 56	2,068,681 30	795,825 69	5,905 38	8,954,552 93	76,013	1,739	8,472	2,132	52,485	19,535						2	
British Columbia.....	12,895,824 28	3,598,385 71	1,708,309 93	169,278 80	23,584,989 72	197,896	58,576	49,396	6,848	54,755	64,747	41	41				37,796	
Yukon.....	122,337 60	11,737 37	4,855 18	2,537 25	141,447 40	1,849	333	64	6,757	368		18	23				232	227
Department of National Revenue.....		186,239 70		6,654 88	192,894 58													
Preventive Service.....		737 02		611,870 21	8,413 74													
British Post Office Parcels	7,616 72																	
Grand Total.....	199,007,143 34	64,894,527 13	65,671,521 24	1,592,929 21	331,071,129 92	2,402,944	1,019,159	211,563	84,133	2,403,161	22,035,557	22,034,223	22,095,571	903,571	903,571	87,872	82,063	82,065

No. 11—STATEMENT showing the Total Value of Imports entered for Home Consumption and Exports of the Dominion of Canada, from and to each Country, during the twelve months ended March 31, 1930.

Countries	Imports entered for Home Consumption			Exports		
	Dutiable Goods	Free Goods	Total Dutiable and Free	Goods the Produce of Canada	Goods not the Produce of Canada	Total Exports
British Empire	\$	\$	\$	\$	\$	\$
United Kingdom.....	148,643,048	40,536,630	189,179,738	281,745,965	1,352,359	283,098,324
Aden.....	12,510		12,510	63,355		63,355
Australia.....	2,062,408	2,148,943	4,211,351	16,322,771	12,192	16,334,963
Barbados.....	3,306,467	1,338,691	4,675,158	1,324,569	35,006	1,359,575
Bermuda.....	53,689	33,771	93,460	2,287,280	84,527	2,371,807
British East Africa.....	1,898,162	84,081	1,982,243	1,707,167		1,707,167
“ South Africa.....	702,237	121,788	824,025	10,917,642	1,679	10,919,321
“ West Africa, other..	34,500	1,399	35,899	9,245		9,245
“ Guiana.....	3,869,282	113,211	3,982,493	1,661,332	46,651	1,707,983
“ Honduras.....	3,380	337,197	340,577	892,518	15,941	908,459
“ India.....	3,593,522	5,439,218	9,032,740	9,116,251	460	9,116,711
“ East Indies, other..		170	170	8,875	5	8,880
“ West Indies, other..	560,356	641,269	1,201,625	4,567,639	50,788	4,618,427
“ Oceania, other.....				71,957	31	71,988
“ Straits Settlements..	601,366	935,513	1,536,879	1,105,228	4,892	1,110,120
“ Sudan.....		3,414	3,414	95,093		95,093
Ceylon.....	2,339,366	261,057	2,600,423	486,236		486,236
Fiji Islands.....	3,672,237	4,367	3,676,604	431,211	1,542	432,753
Gambia.....				19,114		19,114
Gibraltar.....				71,491		71,491
Gold Coast.....	357,589	921,509	1,279,098	689,999		689,999
Hong Kong.....	991,748	267,337	1,259,085	2,000,124	14,690	2,014,814
Iraq.....	28,688	414	29,102	79,130		79,130
Irish Free State.....	56,487	211,418	267,905	2,711,544	674	2,712,218
Jamaica.....	1,875,598	3,319,376	5,194,973	5,138,757	61,474	5,200,231
Malta.....	1,127	500	1,627	318,853		318,853
Newfoundland.....	108,781	2,269,322	2,378,103	12,178,392	472,575	12,650,967
New Zealand.....	13,946,089	2,336,630	16,282,719	19,166,488	21,315	19,187,803
Nigeria.....				300,450		300,450
Palestine.....	24,582	135	24,717	98,934		98,934
Sierra Leone.....		6,909	6,909	64,461		64,461
Trinidad and Tobago.....	2,028,955	561,202	2,590,157	3,998,197	46,525	4,044,722
Total British Empire.....	190,778,173	61,925,531	252,703,704	379,650,268	2,223,326	381,873,594
OTHER COUNTRIES						
Abyssinia.....	35,683		35,683	8,163		8,163
Alaska.....	127,587	50,105	177,692	515,626	10,583	526,209
Albania.....				324		324
Argentina.....	4,224,207	6,008,120	10,232,327	19,206,746	131	19,206,877
Austria.....	763,712	33,658	797,370	435,770	2,397	438,167
Azores and Madeira.....	139,278	12	139,290	153,946		153,946
Belgian Congo.....				322,837		322,837
Belgium.....	9,537,690	3,481,316	13,019,006	21,692,858	111,424	21,804,282
Bolivia.....				132,315	410	132,725
Brazil.....	1,671,991	15,716	1,687,707	4,292,293	141	4,292,434
Bulgaria.....	4,075	10,337	14,412	43,822		43,822
Canary Islands.....	5,568		5,568	99,048		99,048
Chile.....	1,415	665,711	667,126	2,250,003		2,250,003
China.....	2,173,470	803,552	2,977,022	16,527,959	21,000	16,548,959
Colombia.....	1,202,184	6,050,507	7,252,691	1,643,048	10,767	1,653,815
Costa Rica.....	136,919	15	136,934	97,617	3,062	100,679
Cuba.....	2,697,625	812,602	3,510,227	4,245,576	542	4,246,118
Czecho-Slovakia.....	3,746,380	46,009	3,792,389	478,847	6,549	485,396
Denmark.....	84,954	93,706	178,660	4,108,704	433	4,109,137
Dutch Guiana.....		28,135	28,135	102,204		102,204
“ East Indies.....	552,279	77,841	630,120	2,279,871		2,279,871
“ West Indies.....	323,858	117,293	441,151	264,502	1,659	266,161
Ecuador.....				111,674	80	111,754
Egypt.....	114,778	41,074	155,852	1,028,530	689	1,029,219
Esthonia.....	636		636	32,509		32,509
Finland.....	55,699	35,574	91,273	1,331,652		1,331,652
France.....	23,406,579	1,751,628	25,158,207	16,507,011	186,549	16,693,560

No. 11—STATEMENT showing the Total Value of Imports entered for Home Consumption and Exports of the Dominion of Canada, from and to each Country, etc.—*Concluded.*

Countries	Imports entered for Home Consumption			Exports		
	Dutiable Goods	Free Goods	Total Dutiable and Free	Goods the Produce of Canada	Goods not the Produce of Canada	Total Exports
	\$	\$	\$	\$	\$	\$
OTHER COUNTRIES—Con.						
French Africa.....	21,242	92,087	113,329	612,653		612,653
“ Guiana.....				95,284		95,284
“ East Indies.....	758	11,927	12,685	28,682	4,124	32,806
“ West Indies.....	171	390	561	537,990	447	538,437
“ Oceania.....				51,301		51,301
Germany.....	16,690,755	4,814,673	21,505,428	25,343,661	124,753	25,468,414
Greece.....	337,213	37,053	374,266	5,387,067	12	5,387,079
Greenland.....		168,376	168,376			
Guatemala.....	37,588	10	37,598	172,877	7	172,884
Hawaii.....	328,691	3,559	332,250	37,576	438	38,014
Hayti.....	70,783		70,783	142,578	51	142,629
Honduras.....	346,760	6,045	352,805	143,701	783	144,484
Hungary.....	46,049	1,695	47,744	96,088	350	96,438
Iceland.....	589	110	699	36,854		36,854
Italy.....	4,203,611	760,083	4,963,694	11,387,294	3,752	11,391,046
Italian Africa.....				6,800		6,800
Japan.....	8,996,467	3,540,786	12,537,253	30,475,581	6,902	30,482,483
Jugo Slavia.....	29,135	1,803	30,938	28,658	1,078	29,736
Korea.....	1,828	100	1,928	18,509	18	18,527
Lettonia.....	3,817	500	4,317	11,248		11,248
Liberia.....				28,250		28,250
Lithuania.....	29	5,028	5,057	71		71
Madagascar.....	1,933	17,636	19,569	22,073		22,073
Mexico.....	635,621	114,024	749,645	2,583,440	4,156	2,587,596
Miquelon and St. Pierre.....	8,588	55,581	64,169	5,859,251	191,090	6,050,341
Morocco.....	38,072	10,484	48,556	306,654		306,654
Netherlands.....	5,751,917	3,680,691	9,432,608	15,944,469	70,876	16,015,345
Nicaragua.....	28,120	32	28,152	61,999		61,999
Norway.....	1,006,048	98,887	1,104,935	3,674,985	523	3,675,508
Panama.....				877,780	992	878,772
Paraguay.....				75,401		75,401
Persia.....	246,737	217	246,954	148,928		148,928
Peru.....	1,492,938	5,999,190	7,492,128	1,795,003	5,263	1,800,266
Philippines.....	448	171,026	171,474	266,794	122	266,916
Poland.....	113,092	30,338	143,430	85,234	172	85,406
Porto Rico.....	5,562	2,125	7,687	877,934		877,934
Portugal.....	520,656	162,458	683,114	1,410,606	37	1,410,643
Portuguese Africa.....				1,210,116		1,210,116
Portuguese Asia.....				348		348
Roumania.....	25,829	1,479	27,308	449,303		449,303
Russia.....	10,909	898,616	909,525	3,738,401		3,738,401
Salvador.....	14,032		14,032	91,432		91,432
San Domingo.....	1,776,421	351	1,776,772	227,510		227,510
Siam.....	264	51,129	51,393	126,808		126,808
Spain.....	2,374,681	409,378	2,784,059	4,503,231	48	4,503,279
Spanish Africa.....				36,650		36,650
Sweden.....	1,612,298	647,106	2,259,404	4,678,037	16,657	4,694,694
Switzerland.....	6,650,163	664,677	7,314,840	1,197,480	28,842	1,226,322
Syria.....	17,556	56	17,612	242,184		242,184
Tripoli.....				4,202		4,202
Turkey.....	492,318	3,838	496,156	82,679		82,679
United States.....	523,299,322	324,142,715	847,442,037	515,049,763	21,638,418	536,688,181
Uruguay.....	4,377	61,770	66,147	1,094,771	115	1,094,886
Venezuela.....	202,325	326,637	528,962	1,286,943		1,286,943
Virgin Islands of U.S.A.....	21		21	11,447		11,447
Total Other Countries.....	628,452,301	367,117,577	995,569,878	740,608,034	22,456,442	763,064,476
Total Merchandise.....	819,230,474	429,043,108	1,248,273,582	1,120,258,302	24,679,768	1,144,938,070

No. 12—COMPARATIVE STATEMENT of Goods remaining in Warehouse in 1928, 1929 and 1930

Articles	Remaining in Warehouse, March 31, 1928		Remaining in Warehouse, March 31, 1929		Remaining in Warehouse, March 31, 1930	
	Quantity	Value	Quantity	Value	Quantity	Value
Agricultural and vegetable products,						
mainly foods—						
Grain and products..... \$		147,120		274,344		238,598
Fruits and nuts..... \$		880,631		826,199		745,331
Sugar above No. 16 D.S..... Cwt.	86,945	216,101	59,415	124,954	37,383	113,416
Sugar not above No. 16 D.S..... Cwt.	561,267	6,513,735	404,326	1,088,935	541,223	1,396,459
Molasses..... Gal.	172,517	19,685	546,432	54,526	2,085,277	86,375
Tea..... Lb.	16,419,066	4,961,011	16,048,471	4,717,118	20,863,581	5,329,842
Coffee..... Lb.	5,792,896	1,474,601	2,979,132	1,591,916	3,926,260	1,613,279
Other vegetable food products... \$		365,539		346,243		465,507
Agricultural and vegetable products,						
other than foods—						
Brandy..... Gal.	163,654	1,326,983	177,026	1,416,411	147,446	2,109,596
Gin..... Gal.	183,429	3,087,675	155,719	2,473,221	145,289	2,085,178
Rum..... Gal.	69,525	762,537	59,539	769,774	83,939	1,079,078
Whiskey..... Gal.	835,116	16,635,553	740,958	14,724,205	725,457	17,129,009
Wines..... Gal.	518,349	1,845,627	448,929	1,353,289	537,353	1,750,403
Other Spirits..... Gal.	139,967	487,623	148,997	290,298	122,376	302,791
Tobacco, unmanufactured..... \$		1,693,807		1,675,065		19,019
Tobacco, manufactures of..... \$		84,208		113,657		84,550
Vegetable products, n.o.p..... \$		162,349		184,142		137,360
Animals and animal products—						
Fish..... \$		258,633		342,715		350,227
Leather..... \$		80,460		115,381		153,353
Other animal products..... \$		362,885		521,743		838,154
Fibres, textiles and textile products—						
Cotton..... \$		915,132		758,841		813,189
Flax..... \$		89,288		124,123		101,956
Silk..... \$		979,885		848,531		915,726
Wool..... \$		1,350,254		1,471,567		1,288,290
Other fibres and textile products \$		451,383		568,748		496,351
Wood and paper products—						
Wood..... \$		262,695		254,360		235,311
Paper..... \$		413,205		377,872		408,370
Iron and steel and manufactures—						
Automobiles..... No.	577	656,462	485	615,562	406	434,128
Other iron and steel manufactures \$		1,621,450		1,799,380		2,135,709
Other ores, metals and metal manufactures..... \$						
		550,660		335,175		412,101
Non-metallic minerals and products—						
Coal..... Tons	1,704,874	3,032,470	1,395,247	2,631,106	1,802,341	3,057,346
Glass..... \$		93,734		74,566		82,525
Oil..... \$		526,986		378,985		409,016
Other non-metallic minerals and products..... \$						
		107,160		82,573		111,214
Chemicals and chemical products. \$						
		895,897		548,149		425,918
Miscellaneous commodities..... \$						
		1,028,606		1,011,224		1,161,920
Total.....		54,342,030		44,884,898		48,516,595

No. 13—ABSTRACT by Countries, of Imports entered for Consumption Dutiable and Free

Countries	Entered for Home Consumption									
	General Tariff		Preferential Tariff		Treaty Rates		Total Dutiable		Total Free	
	Value	Duty	Value	Duty	Value	Duty	Value	Duty	Value	Duty
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
BRITISH EMPIRE										
Great Britain.....	39,461,391	17,452,896 20	107,404,053	19,996,745 06	1,777,004	398,525 10	148,643,048	40,536,690	189,179,738	37,846,166 96
Aden.....	12,510	1,509 08	.....	.....	.....	.....	12,510	.....	12,510	1,509 08
Australia.....	135,524	29,018 18	1,864,082	131,214 59	62,802	17,014 87	2,062,408	2,148,943	4,211,351	177,247 64
Barbados.....	14,307	4,139 57	3,292,128	407,386 09	32	5 76	3,306,467	1,368,691	4,675,158	411,531 42
Bermuda.....	18,955	5,665 30	40,734	6,053 94	.....	.....	59,689	33,771	93,460	11,719 24
British East Africa.....	11,015	1,388 64	1,887,147	235,205 83	.....	.....	1,898,162	84,081	1,982,243	236,564 47
“ South Africa.....	714	264 17	701,523	85,376 52	.....	.....	702,237	121,788	824,025	85,640 69
“ West Africa, other.....	11,275	2,262 50	.....	.....	23,225	3,286 50	34,500	1,399	35,899	5,549 00
“ Guinea.....	45,806	15,186 72	3,823,423	511,798 50	53	9 54	3,869,282	113,211	3,982,493	526,994 76
“ Honduras.....	3,380	1,083 72	.....	.....	.....	.....	3,380	3,380	337,197	1,083 72
“ India.....	220,473	32,743 35	3,372,791	806,135 40	258	52 04	3,593,522	5,439,218	9,032,740	838,930 79
“ East Indies, other.....	.....	.....	.....	.....	.....	.....	.....	170	.....	.....
“ West Indies, other.....	76,443	42,851 76	483,495	83,347 45	418	71 13	560,356	641,269	1,201,625	126,270 34
“ Straits Settlements.....	117,100	26,473 28	483,267	65,684 86	999	194 71	601,366	935,513	1,536,879	92,352 85
“ Sudan.....	30,350	8,977 46	2,307,516	469,739 83	1,500	572 15	2,339,366	261,057	2,600,423	479,289 44
Ceylon.....	30,388	4,508 00	3,672,149	350,595 69	.....	.....	3,672,149	4,367	3,676,504	350,640 69
Fiji Islands.....	23,738	294,377 24	.....	.....	333,850	51,987 00	357,589	921,509	1,279,098	56,495 00
Gold Coast.....	960,969	11,981 89	29,905	462,454 43	30,789	7,618 79	991,748	267,337	1,259,085	301,996 03
Hong Kong.....	28,088	7,483 24	1,800,996	29,905	.....	.....	28,088	21,418	29,102	3,959 59
Iraq.....	23,886	396 65	.....	.....	2,696	298 48	56,487	211,418	267,905	18,005 30
Irish Free State.....	797	24,755 19	15,377	2,183 88	53	20 70	1,875,597	3,319,376	5,194,973	469,958 37
Jamaica.....	93,373	24,761 53	13,731,924	412,838 10	330	91 26	1,127	500	1,627	447 91
Malta.....	203,731	21,351 67	.....	.....	31	6 20	108,781	2,269,322	2,378,103	26,945 27
Newfoundland.....	.....	.....	.....	.....	31	2,063 42	13,946,089	16,282,719	439,663 05	.....
New Zealand.....	.....	.....	.....	.....	10,434	809 93	24,582	2,336,135	24,717	22,161 60
Palestine.....	.....	.....	.....	.....	3,003	.....	.....	6,909	.....	.....
Sierra Leone.....	21,579	.....	.....	.....	.....	.....	.....	561,202	2,590,157	243,903 43
Trinidad and Tobago.....	26,260	5,628 78	1,976,841	234,966 55	25,854	3,308 10	2,028,955	.....	.....	.....
Total British Empire.....	41,566,892	18,023,638 71	146,937,350	24,267,452 25	2,273,931	483,935 68	190,778,173	61,925,531	252,703,704	42,775,026 64

OTHER COUNTRIES

Abyssinia.....	35,683	4,618 68	.....	35,683	50,105	35,683	4,618 68
Alaska.....	127,587	14,038 68	.....	127,587	177,692	177,692	14,038 68
Argentina.....	3,552,063	214,818 73	672,154	4,224,207	6,008,120	10,232,327	350,112 42
Australia.....	763,712	224,498 99	135,293 69	763,712	33,658	797,370	224,498 99
Azores and Madeira.....	8,613	2,973 35	36,715 29	139,278	12	139,290	39,688 94
Belgium.....	2,125,789	400,211 16	1,395,549 55	959,760	3,481,316	13,019,006	1,795,760 71
Brazil.....	1,671,991	276,053 36	7,411,901	1,671,991	15,716	1,687,707	276,053 36
Bulgaria.....	4,075	305 63	.....	4,075	10,337	1,687,707	276,053 36
Canary Islands.....	877	305 63	1,356 94	5,568	.....	14,412	1,662 99
Chile.....	1,415	411 90	4,691	1,415	665,711	667,126	411 90
China.....	2,173,470	749,847 26	.....	2,173,470	803,552	2,977,022	749,847 26
Colombia.....	1,202,184	158,134 72	.....	1,202,184	6,050,507	7,252,691	158,134 72
Costa Rica.....	136,919	16,342 63	.....	136,919	15	136,924	16,342 63
Cuba.....	2,696,322	1,867,085 01	1,303	2,697,625	812,602	3,510,227	1,867,475 91
Czechoslovakia.....	501,776	124,613 85	3,244,604	3,746,380	46,009	3,792,389	923,843 01
Denmark.....	35,035	11,463 35	49,919	84,954	93,706	178,660	21,355 85
Dutch East Indies.....	485,909	215,062 51	66,370	552,279	28,135	630,120	238,154 74
..... West Indies.....	323,858	37,567 46	23,092 23	323,858	77,841	630,120	238,154 74
Egypt.....	114,778	36,418 53	.....	114,778	41,151	441,151	37,567 46
Estonia.....	318	77 50	68 00	636	155,852	155,852	36,418 53
Finland.....	22,838	5,646 39	318	55,699	636	91,273	12,916 45
France.....	1,563,479	840,262 36	21,843,100	23,406,579	1,751,628	25,158,207	9,234,611 70
French Africa.....	1,156	237 64	20,086	21,242	92,087	113,329	8,909 48
..... East Indies.....	171	1,251 25	758	171	11,927	12,685	194 51
Germany.....	16,690,755	4,680,463 88	.....	16,690,755	4,814,673	21,505,428	4,680,463 88
Greece.....	337,213	124,077 26	.....	337,213	37,053	374,266	124,077 26
Guatemala.....	37,588	4,724 46	.....	37,588	10	37,588	4,724 46
Hawaii.....	328,691	67,271 06	.....	328,691	3,559	332,250	67,271 06
Hayti.....	70,783	46,038 75	.....	70,783	.....	70,783	46,038 75
Honduras.....	346,760	257,759 91	.....	346,760	6,045	352,805	257,759 91
Hungary.....	41,260	7,876 82	4,789	46,049	1,695	47,744	8,914 07
Iceland.....	589	58 90	.....	589	110	699	58 90
India.....	699,035	171,007 65	.....	4,203,611	760,083	4,963,694	1,030,738 42
Italy.....	1,172,997	458,118 36	3,504,576	8,996,467	3,540,786	12,537,253	2,324,416 44
Japan.....	18,103	3,665 90	7,823,470	29,135	1,803	30,938	6,607 03
Jugo Slavia.....	1,661	491 10	11,062	1,828	1,928	532 85	532 85
Korea.....	1,680	269 63	3,137	3,817	500	4,317	916 31
Latonia.....	29	11 95	.....	29	5,928	5,957	11 95
Lithuania.....	351	18 75	1,582	1,933	17,636	19,569	83 78
Madagascar.....	635,621	134,182 56	.....	635,621	114,024	749,645	134,182 56
Mexico.....	8,114	22,789 36	474	8,588	55,581	64,169	22,887 42
Miquelon and St. Pierre.....	35,572	3,571 90	2,500	38,072	10,484	48,556	3,915 10
Morocco.....	3,159,476	1,703,884 49	2,592,441	5,751,917	3,680,691	9,432,608	2,224,420 45
Netherlands.....	28,120	18,870 28	909,823	2,98,120	32	28,152	18,870 28
Nicaragua.....	96,225	29,369 78	.....	1,006,048	98,887	1,104,995	244,499 93
Norway.....	246,737	85,141 05	.....	1,206,737	217	246,954	85,141 05
Persia.....	1,492,938	881,698 96	.....	1,492,938	5,999,190	7,492,128	881,698 96
Peru.....	134 30	134 30	427	1,026,448	171,026	1,197,474	134 30
Philippines.....	112,665	29,859 09	.....	113,092	30,338	143,430	29,980 97
Poland.....	5,562	1,185 39	.....	5,562	2,125	7,687	1,185 39
Porto Rico.....	77,974	13,216 91	442,682	520,656	162,458	683,114	137,580 93
Portugal.....	10,598	1,145 18	15,231	25,829	1,479	27,308	2,195 26
Roumania.....	.....	.....	.....	.....	.....	.....	.....

No. 14—ABSTRACT of the Total Value of Exports by Countries

Countries	Goods the produce of Canada	Goods not the produce of Canada	Total Exports
	\$	\$	\$
BRITISH EMPIRE			
Great Britain.....	281,745,965	1,352,359	283,098,324
Aden.....	63,355		63,355
Australia.....	16,322,771	12,192	16,334,963
Barbados.....	1,324,569	35,006	1,359,575
Bermuda.....	2,287,280	84,527	2,371,807
British East Africa.....	1,707,167		1,707,167
“ South Africa.....	10,917,642	1,679	10,919,321
“ West Africa, other.....	9,245		9,245
“ Guiana.....	1,661,332	46,651	1,707,983
“ Honduras.....	892,518	15,941	908,459
“ India.....	9,116,251	460	9,116,711
“ East Indies, other.....	8,875	5	8,880
“ West Indies, other.....	4,567,639	50,788	4,618,427
“ Oceania, other.....	71,957	31	71,988
“ Straits Settlements.....	1,105,228	4,892	1,110,120
“ Sudan.....	95,093		95,093
Ceylon.....	486,236		486,236
Fiji Islands.....	431,211	1,542	432,753
Gambia.....	19,114		19,114
Gibraltar.....	71,491		71,491
Gold Coast.....	689,999		689,999
Hong Kong.....	2,000,124	14,690	2,014,814
Iraq.....	79,130		79,130
Irish Free State.....	2,711,544	674	2,712,218
Jamaica.....	5,138,757	61,474	5,200,231
Malta.....	318,853		318,853
Newfoundland.....	12,178,392	472,575	12,650,967
New Zealand.....	19,166,488	21,315	19,187,803
Nigeria.....	300,450		300,450
Palestine.....	98,934		98,934
Sierra Leone.....	64,461		64,461
Trinidad and Tobago.....	3,998,197	46,525	4,044,722
Total British Empire.....	379,650,268	2,223,326	381,873,594
OTHER COUNTRIES			
Abyssinia.....	8,163		8,163
Alaska.....	515,626	10,583	526,209
Albania.....	324		324
Argentina.....	19,206,746	131	19,206,877
Austria.....	453,770	2,397	458,167
Azores and Madeira.....	153,946		153,946
Belgian Kongo.....	322,837		322,837
Belgium.....	21,692,858	111,424	21,804,282
Bolivia.....	132,315	410	132,725
Brazil.....	4,292,293	141	4,292,434
Bulgaria.....	43,822		43,822
Canary Islands.....	99,048		99,048
Chile.....	2,280,003		2,280,003
China.....	16,527,959	21,000	16,548,959
Colombia.....	1,643,048	10,767	1,653,815
Costa Rica.....	97,617	3,062	100,679
Cuba.....	4,245,576	542	4,246,118
Czecho-Slovakia.....	478,847	6,549	485,396
Denmark.....	4,108,704	433	4,109,137
Dutch Guiana.....	102,204		102,204
“ East Indies.....	2,279,871		2,279,871
“ West Indies.....	264,502	1,659	266,161
Ecuador.....	111,674	80	111,754
Egypt.....	1,028,530	689	1,029,219
Estonia.....	32,509		32,509
Finland.....	1,331,652		1,331,652
France.....	16,507,011	186,549	16,693,560
French Africa.....	612,653		612,653
“ Guiana.....	95,284		95,284
“ East Indies.....	28,682	4,124	32,806
“ West Indies.....	537,990	447	538,437
“ Oceania.....	51,301		51,301

No. 14—ABSTRACT of the Total Value of Exports by Countries—*Concluded*

Countries	Goods the produce of Canada	Goods not the produce of Canada	Total Exports
	\$	\$	\$
OTHER COUNTRIES—Concluded			
Germany.....	25,343,661	124,753	25,468,414
Greece.....	5,387,067	12	5,387,079
Guatemala.....	172,877	7	172,884
Hawaii.....	37,576	438	38,014
Hayti.....	142,578	51	142,629
Honduras.....	143,701	783	144,484
Hungary.....	96,088	350	96,438
Iceland.....	36,854		36,854
Italy.....	11,387,294	3,752	11,391,046
Italian Africa.....	6,800		6,800
Japan.....	30,475,581	6,902	30,482,483
Jugo Slavia.....	28,658	1,078	29,736
Korea.....	18,509	18	18,527
Lettonia.....	11,248		11,248
Liberia.....	28,250		28,250
Lithuania.....	71		71
Madagascar.....	22,073		22,073
Mexico.....	2,583,440	4,156	2,587,596
Miquelon and St. Pierre.....	5,859,251	191,090	6,050,341
Morocco.....	306,654		306,654
Netherlands.....	15,944,469	70,876	16,015,345
Nicaragua.....	61,999		61,999
Norway.....	3,674,985	523	3,675,508
Panama.....	877,780	992	878,772
Paraguay.....	75,401		75,401
Persia.....	148,928		148,928
Peru.....	1,795,003	5,263	1,800,266
Philippines.....	266,794	122	266,916
Poland.....	85,234	172	85,406
Porto Rico.....	877,934		877,934
Portugal.....	1,410,606	37	1,410,643
Portuguese Africa.....	1,210,116		1,210,116
" Asia.....	348		348
Roumania.....	449,303		449,303
Russia.....	3,738,401		3,738,401
Salvador.....	91,432		91,432
San Domingo.....	227,510		227,510
Siam.....	126,808		126,808
Spain.....	4,503,231	48	4,503,279
Spanish Africa.....	36,650		36,650
Sweden.....	4,678,037	16,657	4,694,694
Switzerland.....	1,197,480	28,842	1,226,322
Syria.....	242,184		242,184
Tripoli.....	4,202		4,202
Turkey.....	82,679		82,679
United States.....	515,049,763	21,638,418	536,688,181
Uruguay.....	1,094,771	115	1,094,886
Venezuela.....	1,286,943		1,286,943
Virgin Islands of U.S.A.....	11,447		11,447
Total Other Countries.....	740,608,034	22,456,442	763,064,476
Grand Total Merchandise, Exports.....	1,120,258,302	24,679,768	1,144,938,070

No. 15—STATEMENT showing Total Value of Canadian Exports and Imports in Transit through United States during the fiscal year ended March 31, 1930

Countries	Exports	Imports
	\$	\$
BRITISH EMPIRE		
Great Britain.....	113,333,242	1,042,164
Aden.....	55,506	1,903
Australia.....	3,277,288	102,207
Barbados.....	75,600	
Bermuda.....	90,308	537
British East Africa.....	1,382,627	
" South Africa.....	2,707,607	35,874
" West Africa, other.....	30	2,811
" Guiana.....	139,558	
" Honduras.....	9,670	141,517
" India.....	3,292,036	114,094
" East Indies, other.....	2,549	
" West Indies, other.....	280,142	11,021
" Oceania, other.....	29,358	
" Straits Settlements.....	1,036,614	548,553
" Sudan.....	95,093	
Ceylon.....	285,433	90,773
Fiji Islands.....	85,637	
Gambia.....	19,039	
Gibraltar.....	4,092	
Gold Coast.....	560,414	
Hong Kong.....	136,524	8,793
Iraq.....	75,648	396
Irish Free State.....	134,388	
Jamaica.....	1,529,524	3,426
Malta.....	298,053	
Newfoundland.....	115,921	8,344
New Zealand.....	6,035,301	148,924
Nigeria.....	203,470	
Palestine.....	87,055	2,547
Sierra Leone.....	45,750	
Trinidad and Tobago.....	672,576	
Total British Empire.....	136,096,053	2,263,884
OTHER COUNTRIES		
Abyssinia.....	8,163	5,650
Albania.....	324	
Argentina.....	13,910,298	1,442,018
Austria.....	329,515	9,034
Azores and Madeira.....	103,621	
Belgian Kongo.....	299,494	
Belgium.....	1,042,085	157,684
Bolivia.....	124,133	
Brazil.....	3,411,200	650,253
Bulgaria.....	43,709	
Canary Islands.....	89,226	
Chile.....	2,131,348	6,623
China.....	1,464,034	609,439
Colombia.....	808,345	461,572
Costa Rica.....	79,558	8,811
Cuba.....	1,472,115	908,773
Czecho-Slovakia.....	174,017	11,269
Denmark.....	2,497,603	3,767
Dutch Guiana.....	12,181	
" East Indies.....	2,230,717	212,724
" West Indies.....	216,374	
Ecuador.....	103,604	
Egypt.....	881,595	10,683
Estonia.....	10,239	
Finland.....	722,508	
France.....	2,129,101	66,782
French Africa.....	581,899	56,702
" Guiana.....	88,602	
" East Indies.....	19,750	
" West Indies.....	122,249	
" Oceania.....	16,196	

No. 15—STATEMENT showing Total Value of Canadian Exports and Imports in Transit through United States during the fiscal year ended March 31, 1930—*Concluded*

Countries	Exports	Imports
	\$	\$
OTHER COUNTRIES—Concluded		
Germany.....	4,063,709	680,931
Greece.....	1,030,468	108,475
Guatemala.....	163,329	1,684
Hawaii.....	4,526	4,569
Hayti.....	125,675	
Honduras.....	127,360	
Hungary.....	86,418	319
Iceland.....	11,908	344
Italy.....	1,081,206	409,669
Italian Africa.....	6,800	
Japan.....	3,500,363	157,750
Jugo Slavia.....	27,710	383
Korea.....	11,200	
Lettonia.....	5,474	
Liberia.....	12,711	
Lithuania.....	21	3,920
Madagascar.....	21,886	631
Mexico.....	2,406,202	278,727
Miquelon and St. Pierre.....	200,695	
Morocco.....	302,346	27,642
Netherlands.....	4,373,206	183,302
Nicaragua.....	58,679	
Norway.....	1,176,765	6,460
Panama.....	832,864	
Paraguay.....	75,401	
Persia.....	148,928	48,690
Peru.....	1,498,611	
Philippines.....	15,473	7,541
Poland.....	37,067	5,708
Porto Rico.....	72,778	2,761
Portugal.....	533,089	21,005
Portuguese Africa.....	601,316	
Roumania.....	369,943	
Russia.....	2,704,907	12,985
Salvador.....	81,330	
San Domingo.....	211,948	
Siam.....	123,268	
Spain.....	3,594,243	504,321
Spanish Africa.....	36,251	
Sweden.....	1,429,232	65,089
Switzerland.....	404,789	69,137
Syria.....	237,320	2,097
Tripoli.....	4,202	
Turkey.....	62,835	276,267
Uruguay.....	866,461	4,965
Venezuela.....	1,199,797	78,849
Virgin Islands of U.S.A.....	3,164	
Total Other Countries.....	69,067,677	7,586,005
Total Merchandise.....	205,163,730	9,849,889

No. 15—STATEMENT showing the number of Automobiles passing through Canadian Ports for touring purposes during the calendar year 1929.

Port	Foreign		Canadian
	Permitted to enter for a period not exceeding twenty-four hours	Permitted to enter for a period exceeding twenty-four hours	Permitted to leave
NOVA SCOTIA			
Annapolis Royal.....		4	.....
Digby.....		1	.....
Halifax.....		109	19
Truro.....		7	.....
Yarmouth.....		1,684	113
PRINCE EDWARD ISLAND			
Charlottetown.....		3	.....
Souris.....		1	.....
Summerside.....		1	.....
NEW BRUNSWICK			
Andover.....	19,627	3,250	275
Aroostock Junction.....	442	7	56
Bloomfield.....	1,928	229	15
Centreville.....	9,067	817	655
Clair.....	4,804	997	713
Connors.....	486	111	64
Debec.....	123	7	.....
Edmundston.....	3,357	1,703	193
Fosterville.....	3,221	196	82
Four Falls.....	4,721	349	12
Grand Falls.....	14,879	2,462	181
Milltown.....		290	66
McAdam Junction.....		22	2
Richmond Road.....	34,487	7,736	1,113
River de Chute.....	6,356	424	27
St. Andrews.....		1	.....
St. Croix.....	10,000	1,059	285
St. Hilaire.....	452	48	32
St. John.....		181	14
St. Leonards.....	43,386	4,205	22,157
St. Stephen.....	1,524	13,180	1,798
Woodstock.....		8	.....
QUEBEC			
Abercorn.....	18,223	7,754	12,687
Armstrong.....	146	15,750	4,955
Athelstan.....		485	7
Beebe Junction.....	5,301	553	77
Cantic.....	139	5,656	2,235
Clarenceville.....	778	777	448
Comin's Mills.....	10,237	6,537	918
Covey Hill.....		1,289	393
Dundee.....	5,082	11,296	3,607
Estcourt.....	9	3	1
Franklin Centre.....		987	297
Frelighsburg.....	8,688	8,602	1,308
Frontier.....	304	208	771
Hemmingford.....		5,493	2,916
Herdman.....	621	7,640	3,186
Hereford Road.....	20,574	9,853	5,523
Highwater.....	13,416	9,852	4,860
Lacolle.....	9,145	82,565	25,005
Mansonville.....	2,834	778	2,729
Montreal.....		255	148
Noyan.....	4,958	11,775	1,895
Philipsburg.....	3,850	51,229	6,407
Rock Island.....	51,207	30,261	35,123
Stanhope.....	14,340	16,049	15,040
St. André Road.....	6,031	5,266	3,132
St. Agnes de Dundee.....	77	40	68
St. Armand.....	5,072	1,098	218
St. Camille.....		141	.....
St. Pamphile.....	9		4
St. Regis.....	16,312	1,484	752
St. Zacharie.....		1,301	418
Trout River.....	6,315	25,180	10,586

No. 15—STATEMENT showing the number of Automobiles passing through Canadian Ports for touring purposes during the calendar year 1929
Continued

Port	Foreign		Canadian
	Permitted to enter for a period not exceeding twenty-four hours	Permitted to enter for a period exceeding twenty-four hours	Permitted to leave
ONTARIO			
Aultsville.....	1,874	3,561	2,052
Bridgeburg.....	968,072	141,166	104,055
Brockville.....	4,129	9,121	2,600
Cobourg.....	1	159	13
Courtright.....	2,526	1,109	168
Fort Frances.....	33,947	1,558	807
Fort William.....		80	4
Gananoque.....	16	5,010	815
Kingston.....	12	1,070	244
Morrisburg.....	613	1,354	1,102
Niagara Falls.....	817,086	178,281	97,276
Pigeon River.....	381	10,036	2,928
Port Arthur.....		26	36
Port Dover.....	52	1,059	116
Port Lambton.....	5,337	1,292	468
Port Stanley.....	99	1,676	95
Prescott.....	10,552	13,051	7,535
Rainy River.....	713	379	1,230
Rockport.....	77	5,641	515
Sarnia.....	40,509	46,444	12,101
Sault Ste. Marie.....	14,209	6,513	1,343
Sombra.....	3,041	852	327
Toronto.....		574	100
Walkerville.....	276,053	29,539	3,360
Walpole Island.....	1,495	193	34
Windsor.....	741,742	123,220	43,926
MANITOBA			
Bannerman.....	835	30	16
Cartwright.....	890	232	790
Crystal City.....	1,481	184	113
Deloraine.....	368	254	579
Emerson.....	11,313	11,714	10,113
Gretna.....	9,255	428	181
Haskett.....	1,307	113	379
Killarney.....	2,213	824	830
Lyleton.....	823	26	703
Melita.....	963	826	575
Mowbray.....	702	183	30
Piney.....	1,194	254	625
Snowflake.....	1,388	20	49
South Junction.....	102	7	9
Sprague.....	82	8	25
Waskada.....	417	78	358
SASKATCHEWAN			
Bengough.....	62	382	155
Big Muddy.....	289	64	407
Climax.....	202	651	743
East Poplar River.....	853	459	1,316
Elmore.....	1,841	192	45
Estevan.....	3,597	411	1,467
Marienthal.....	2,586	640	2,437
Northgate.....	1,303	213	76
North Portal.....	3,929	1,819	8,453
Shaunavon.....	9	8	81
Sybouts.....	333	90	223
Val Marie.....	61	194	163
West Poplar River.....	530	437	944
Willow Creek.....	185	313	1,226

No. 15—STATEMENT showing the number of Automobiles passing through Canadian Ports for touring purposes during the calendar year 1929
Concluded

Port	Foreign		Canadian
	Permitted to enter for a period not exceeding twenty-four hours	Permitted to enter for a period exceeding twenty-four hours	Permitted to leave
ALBERTA			
Aden.....	344	69	12
Cardston.....	7	14	.....
Carway.....	1,031	3,863	1,401
Coutts.....	21,009	2,047	1,021
Medicine Hat.....	.....	2	.....
Twin Lakes.....	233	74	141
Wild Horse.....	591	283	220
BRITISH COLUMBIA			
Aldergrove.....	2,775	5,828	5,815
Boundary Bay.....	6,172	3,460	27,239
Bridestown.....	.....	243	333
Carson.....	2,417	1,562	231
Cascade City.....	8,038	299	1,056
Douglas.....	8,805	7,167	5,888
Huntingdon.....	18,737	116	14,550
Kingsgate.....	.....	3,933	5,028
Midway.....	1,622	7	67
Myncester.....	1,397	20	173
Nelway.....	330	2,633	1,678
Newgate.....	1,132	401	243
New Westminster.....	.....	16	.....
Osoyoos.....	1,339	3,223	3,857
Pacific Highway.....	3,597	78,045	54,040
Paterson.....	.....	1,833	1,920
Roosville.....	1,838	869	184
Rykerts.....	863	1,395	1,269
Sidney.....	.....	2,678	1,081
Similkameen.....	133	107	241
Vancouver.....	1	264	82
Victoria.....	8,494	1,847
Waneta.....	9	8
Grand Total.....	3,416,588	1,091,014	619,572

PART II—EXCISE

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REPORT

OF THE

COMMISSIONER OF EXCISE

To the Hon. E. B. RYCKMAN,
Minister of National Revenue.

SIR,—Herewith I have the honour to submit statements of the Excise Revenues collected by this department during the fiscal year ended March 31, 1930, with statistics respecting the sources whence these revenues were derived. The following summary comparison shows the accrued revenues for the fiscal years ended March 31, 1926, 1927, 1928, 1929 and 1930.

	1926	1927	1928	1929	1930
	\$	\$	\$	\$	\$
Excise Duty.....	43,370,231	49,139,913	58,062,123	64,362,328	65,668,848
Excise Tax.....	99,228,334	106,723,328	91,662,086	84,014,166	64,153,596
Totals.....	142,598,565	155,863,241	149,724,209	148,376,494	129,822,444

DETAILS of Excise Revenue accrued during the undermentioned fiscal years:

	1926	1927	1928	1929	1930
	\$	\$	\$	\$	\$
Spirits.....	10,932,578	13,904,584	18,267,537	19,344,599	18,534,658
Malt-Liquor.....	113,933	223,833	239,245	351,440	347,648
Malt.....	3,840,774	3,811,557	4,277,066	4,756,945	4,495,651
Tobacco.....	27,919,051	30,638,418	34,702,359	39,307,618	41,671,417
Cigars.....	539,300	536,845	549,896	576,883	593,052
Acetic acid.....	100	150	150	150	150
Manufacturers in bond.....	17,250	17,350	17,700	17,020	17,950
Other receipts.....	7,245	7,176	8,170	7,673	8,322
Totals.....	43,370,231	49,139,913	58,062,123	64,362,328	65,668,848

The quantity of spirits produced during the fiscal year was 16,813,433 proof gallons, as compared with 16,816,312 proof gallons produced in the previous fiscal year. The raw materials taken for use in the production of spirits, during the fiscal year were as follows:—

	Lb.
Malt.....	42,064,219
Indian corn.....	114,942,991
Rye.....	78,075,195
Oats.....	257,510
Rice.....	58,330
Molasses.....	61,036,607

The transactions of the several distilleries will be found in Statement No. 7.

There was, on April 1, 1929, in process of manufacture.....	Proof gal. 1,040,833
Manufactured during the fiscal year.....	16,813,433
Returned to distilleries for redistillation—In bond.....	1,985,908
Received into distilleries from other sources—Duty paid.....	327,273
Total.....	20,167,447

This was disposed off as follows:—

Placed in warehouse.....	Proof gal. 19,269,025
Fusel oil and spirits written off.....	21,156
Deficiency arising from rectification.....	312
Remaining in process of manufacture, March 31, 1930, by actual stock taking.....	876,954
Total.....	20,167,447

Spirits.—The following statement shows the warehousing transactions in Spirits during the fiscal year ended March 31, 1930, and the four preceding fiscal years:—

Fiscal Years	In Warehouse at beginning of year including transits	Warehoused during the year Ex-distillery	Other-wise warehoused	Entered for consumption	Exported	Used in bonded factories	Other-wise accounted for	For redistillation	In Warehouse at end of year, including transits
	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.
1925-1926.....	11,691,495	7,328,232	119,972	1,082,785	499,007	1,109,295	1,894,957	1,756,259	12,797,396
1926-1927.....	12,797,396	10,842,001	156,677	1,404,111	571,792	1,170,059	2,438,928	1,810,783	16,400,401
1927-1928.....	16,400,401	13,851,317	11,016	1,896,357	579,420	1,069,622	3,101,771	1,847,567	21,767,997
1928-1929.....	21,767,997	18,794,370	33,063	2,016,802	1,143,276	1,034,875	3,495,228	2,058,542	30,846,797
Totals.....	62,657,289	50,815,920	320,728	6,400,055	2,793,495	4,383,851	10,930,884	7,473,151	81,812,591
Average.....	15,664,323	12,703,980	80,182	1,600,014	698,374	1,095,963	2,732,721	1,868,288	20,453,148
1929-1930.....	30,846,797	19,269,025	16,866	1,926,063	1,810,197	1,054,307	3,504,923	1,985,908	39,851,290

The foreign demand for Canadian distillery products is greater than the average for the last four years, the quantities exported being as follows:—

1925-1926.....	499,007
1926-1927.....	571,792
1927-1928.....	579,420
1928-1929.....	1,143,276
1929-1930.....	1,810,197

The following statement shows the entire quantities of spirits upon which duties were collected during the fiscal years recited therein.

Fiscal Years	Canadian Spirits		Imported Spirits used in Bonded Factories	Total quantities upon which duty was collected	Revenue accrued including Licence Fees
	Paid duty Ex-distillery	Paid duty Ex-warehouse			
	Pf. gal.	Pf. gal.	Pf. gal.	Pf. gal.	\$
1925-1926.....	6,153	2,072,490	119,590	2,198,233	10,932,578
1926-1927.....	1,585	2,417,759	156,381	2,575,725	13,904,554
1927-1928.....	3,818	2,956,946	9,033	2,969,797	18,267,537
1928-1929.....	131	3,018,634	33,043	3,051,808	19,344,599
Totals.....	11,687	10,465,829	318,047	10,795,563	62,449,268
Average.....	2,922	2,616,457	79,512	2,698,891	15,612,317
1929-1930.....	312	2,970,936	9,434	2,980,682	18,534,658

Malt.—The following statement shows the transactions in Malt during the fiscal year ended March 31, 1930, and the four preceding fiscal years:—

Fiscal Years	In Warehouse at beginning of year, including transits	Manufactured during the year	Imported	Increase	Entered for consumption	Exported	Otherwise accounted for	In Warehouse at end of year, including transits	Revenue accrued including Licence Fees
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	\$
1925-1926.....	34,012,249	115,810,397	22,910,071	300,092	127,789,729	4,664,150	10,600,197	29,978,783	3,840,774
1926-1927.....	29,978,783	117,780,854	23,647,932	636,019	126,967,976	6,304,684	18,417,736	18,353,242	3,811,557
1927-1928.....	18,353,242	143,839,297	32,686,029	848,140	142,543,947	3,274,082	31,048,607	31,048,607	4,277,066
1928-1929.....	20,856,012	178,935,373	41,115,447	998,422	158,486,816	2,487,823	44,552,437	36,378,678	4,275,945
Totals.....	103,200,236	558,362,461	118,359,479	2,782,673	555,788,468	16,730,739	104,618,977	105,566,665	16,686,342
Average.....	25,800,059	139,590,615	29,589,870	695,668	138,947,117	4,182,685	26,154,744	26,391,666	4,171,585
1929-1930.....	Bondex 247,471 36,378,678	201,723,821	26,130,017	825,962	149,746,711	3,200,875	48,627,762	63,730,601	4,495,651

Tobacco.—The following statement shows the transactions in Tobacco, cigarettes and snuff during the fiscal year ended March 31, 1930 and the four preceding fiscal years:—

Fiscal Years	In Warehouse at beginning of year, including transits	Manufactured during the year	Entered for consumption	Exported	Otherwise accounted for	In Warehouse at end of year, including transits	Raw Leaf entered for consumption	Canada Twist entered for consumption	Total Tobacco entered for consumption	Other Materials entered for consumption	Revenue accrued, including Licence Fees
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	\$
1925-1926.....	437,476	30,243,894	30,245,627	121,573	47,871	266,299	15,471,377	200	45,717,204	18,472	27,919,037
1926-1927.....	266,299	31,729,243	31,591,732	299,273	16,162	388,375	15,489,811	40	47,081,583	23,388	30,638,418
1927-1928.....	88,375	34,153,685	33,688,815	234,005	18,910	300,330	16,539,478	.....	50,238,293	.....	34,702,359
1928-1929.....	300,330	36,043,827	35,795,662	141,457	11,728	395,310	17,834,926	60	53,630,648	.....	39,307,618
Totals.....	1,092,480	132,170,649	131,321,836	796,308	94,671	1,050,314	65,335,592	300	196,657,728	41,860	132,567,432
Average.....	273,120	33,042,662	32,830,459	199,077	23,668	262,578	16,333,808	75	49,166,932	10,465	33,141,858
1929-1930.....	305,310	37,461,724	37,303,091	96,315	11,934	445,693	17,149,380	.....	54,452,471	.....	41,671,417

Cigars.—The following statement shows the transactions in Cigars during the fiscal year ended March 31, 1930, and the four preceding fiscal years:—

Fiscal Years	In Warehouse at beginning of year, including transits	Manufactured during the year	Assessments to bring production up to standard	Entered for Consumption	Exported	Otherwise accounted for	In Warehouse at end of year, including transits	Revenue accrued, including Licence Fees
	No.	No.	No.	No.	No.	No.	No.	No.
1925-1926.....	13,348,545	175,658,048	627,450	174,363,188	100,570	76,900	15,093,385	539,300
1926-27.....	15,093,385	175,433,456	55,427	175,335,838	88,500	19,375	15,138,555	536,845
1927-1928.....	15,138,555	180,824,419	66,934	181,797,548	107,465	3,750	14,121,145	549,896
1928-1929.....	14,121,145	194,596,829	85,319	190,981,166	125,750	3,500	17,692,877	576,883
Totals.....	57,701,630	726,512,752	835,130	722,477,740	422,285	103,525	62,045,962	2,202,924
Average.....	14,425,407	181,628,188	208,782	180,619,433	105,571	25,881	15,511,490	550,731
1929-1930.....	17,692,877	196,290,107	152,844	196,251,957	122,746	48,250	17,712,875	593,052

Inspection of Petroleum.—The quantity of Petroleum and Naphtha inspected during the fiscal year was as follows:—

Petroleum.....	Galls. 73,112,935
Naphtha.....	469,906,511
Total.....	543,019,446

GEO. W. TAYLOR,

Commissioner of Excise.

DEPARTMENT OF NATIONAL REVENUE,

OTTAWA, OCTOBER 25th, 1930.

No. 1—TABLE showing the Annual Consumption, per head, of the under-mentioned articles, paying Excise and Customs Duties, and Revenue, per head, derived annually.

Years	Dominion of Canada							
	Quantity				Duty			
	Spirits	Beer	Wines	Tobacco	Spirits	Beer	Wines	Tobacco
	Galls.	Galls.	Galls.	Lb.	\$	\$	\$	\$
1869.....	1-124	2-290	-115	1-755	-761	-092	-037	-193
1870.....	1-434	2-163	-195	2-190	-962	-085	-049	-259
1871.....	1-578	2-490	-259	2-052	1-059	-095	-056	-336
1872.....	1-723	2-774	-257	2-481	1-160	-108	-070	-422
1873.....	1-682	3-188	-238	1-999	1-135	-120	-066	-350
1874.....	1-994	3-012	-288	2-566	1-363	-119	-086	-442
1875.....	1-394	3-091	-149	1-995	1-127	-114	-069	-428
1876.....	1-204	2-454	-177	2-316	1-182	-098	-075	-513
1877.....	-975	2-322	-096	2-051	-949	-109	-057	-446
1878.....	-960	2-169	-096	1-976	-927	-147	-052	-439
1879.....	1-131	2-209	-104	1-954	1-005	-125	-057	-449
1880.....	-715	2-248	-077	1-036	-772	-081	-055	-428
1881.....	-922	2-293	-099	2-935	-990	-081	-073	-443
1882.....	1-009	2-747	-120	2-150	1-084	-098	-092	-485
1883.....	1-090	2-882	-135	2-280	1-186	-103	-097	-473
1884.....	-998	2-924	-117	2-476	1-074	-104	-082	-365
1885.....	1-126	2-639	-109	2-623	1-198	-111	-074	-393
1886.....	-711	2-839	-110	2-052	1-007	-091	-074	-502
1887.....	-746	3-084	-095	2-062	1-045	-100	-066	-514
1888.....	-645	3-247	-094	2-093	-944	-110	-066	-509
1889.....	-776	3-263	-097	1-153	1-107	-114	-068	-529
1890.....	-883	3-300	-104	2-143	1-257	-121	-072	-539
1891.....	-745	3-790	-111	2-292	1-094	-137	-080	-590
1892.....	-701	3-516	-101	2-291	1-156	-211	-075	-680
1893.....	-740	3-485	-094	2-314	1-235	-218	-070	-691
1894.....	-742	3-722	-089	2-264	1-235	-205	-060	-683
1895.....	-666	3-471	-090	2-163	1-124	-161	-056	-645
1896.....	-623	3-528	-070	2-120	1-159	-164	-047	-639
1897.....	-723	3-469	-084	2-243	1-341	-213	-041	-671
1898.....	-536	3-808	-082	2-358	1-306	-126	-041	-615
1899.....	-661	3-995	-086	2-174	1-367	-174	-045	-841
1900.....	-701	4-364	-085	2-300	1-455	-185	-044	-853
1901.....	-757	4-680	-099	2-375	1-574	-195	-047	-864
1902.....	-786	5-035	-090	2-371	1-631	-211	-048	-902
1903.....	-848	4-592	-094	2-483	1-766	-200	-049	-967
1904.....	-917	4-739	-092	2-664	1-913	-217	-049	1-005
1905.....	-895	5-123	-093	2-768	1-898	-214	-049	1-036
1906.....	-898	5-484	-095	2-898	1-879	-238	-052	1-100
*1907 (nine months).....	-977	5-765	-095	3-048	2-035	-257	-054	1-317
1908.....	-939	6-146	-102	3-066	1-965	-268	-057	1-194
1909.....	-860	5-708	-091	3-105	1-794	-241	-050	1-101
1910.....	-883	5-713	-105	3-183	1-843	-242	-057	1-059
1911.....	-948	5-999	-114	3-323	1-988	-257	-059	1-157
1912.....	1-030	6-598	-114	3-679	2-170	-288	-063	1-336
1913.....	1-112	7-005	-131	3-818	2-340	-320	-076	1-462
1914.....	1-061	7-200	-124	3-711	2-249	-328	-069	1-438
1915.....	-872	6-071	-095	3-427	2-086	-379	-051	1-361
1916.....	-745	4-950	-062	3-329	1-951	-362	-033	1-454
1917.....	-698	4-188	-061	3-330	1-788	-304	-033	1-520
1918.....	-699	3-414	-061	3-612	1-810	-228	-036	1-698
1919.....	-391	2-948	-025	3-109	-942	-170	-015	2-520
1920.....	-624	4-100	-078	3-745	1-586	-243	-056	3-541
1921.....	-857	3-954	-077	3-272	2-256	-292	-074	3-245
1922.....	-360	4-375	-037	3-434	1-859	-308	-049	3-254
1923.....	-219	4-028	-037	3-243	2-006	-287	-057	2-883
1924.....	-239	4-790	-062	3-382	2-229	-372	-081	2-902
1925.....	-228	5-223	-066	3-317	2-109	-380	-086	2-884
1926.....	-270	5-617	-074	3-468	2-505	-405	-092	3-118
1927.....	-323	5-525	-091	3-603	2-982	-413	-106	3-395
1928.....	-451	6-070	-122	3-727	4-161	-457	-170	3-726
1929.....	-458	6-829	-120	3-953	4-486	-510	-177	4-210
1930.....	-440	6-367	-130	4-001	4-120	-477	-137	4-332
Average.....	-846	4-114	-107	2-698	1-640	-213	-066	1-264

No. 2—Collection in Ports on account of Excise Duties. Amount collected during fiscal year ended March 31, 1930

Ports	Spirits		Malt		Cigars		Manufactured Tobacco		Foreign Leaf		Malt Liquor	Licences	Total			
	Potable	Non-potable	\$	cts.	\$	cts.	\$	cts.	Cigarettes	Tobacco				Unstemmed	Stemmed	
Amherstburg.....	706,324 63	21,451 27						1,100 40				\$	cts.	\$	cts.	729,567 30
Belleville.....	1,435,793 71				6,930 00											1,443,423 71
Brantford.....		348 48			13,401 00											13,953 48
Bridgeburg.....		2,736 36														2,861 36
Chatham.....		1,445 54														1,574 54
Cobourg.....		14,481 72														14,606 72
Cornwall.....		510 84														610 84
Ft. Frances.....					7,200 00											9,257 80
Ft. William.....	144,199 81				9,615 75											153,987 55
Galt.....					1,800 00											152 00
Goderich.....																6,803 35
Guelph.....					56,058 57											4 00
Hamilton.....	3,312 63	26,605 98			42,543 00											4 00
Kenora.....					2,422 20											56,335 57
Kingston.....		4,821 16			3,240 00											277 00
Kitchener.....	1,203,296 83	712 80			46,894 50											4,654,684 33
Lindsay.....	76,258 08	108 00														3,561 80
London.....		9,191 75			286,266 03											8,211 16
Niagara Falls.....		2 98														1,281,029 23
North Bay.....																570 00
Orillia.....					4,530 00											77,429 92
Oshawa.....																380,715 11
Ottawa.....	348,625 02	71,960 56														1,565 54
Owen Sound.....		400 96														350 00
Peterboro.....																4,609 98
Pt. Arthur.....		277 20														1 00
Port Hope.....																54 00
Prescott.....	220,155 40															462,447 58
Sarnia.....					714 00											1,717 06
Sault Ste. Marie.....					15,000 00											50 00
Simcoe.....																450 96
Stratford.....		356 95			780 00											15,013 00
Sudbury.....					40,500 00											352 20
St. Catharines.....					23,467 95											220,705 40
St. Thomas.....		220 56														751 00
Toronto.....	879,919 06	336,733 77			296,193 77											15,178 00
Trenton.....					414 75											25 00
Welland.....	153,193 32				94,538 44											1,286 95
Windsor.....	4,435,795 72	60,965 80			12,885 33											40,500 00
Woodstock.....		3,448 80			142,324 47											23,927 00
Total Ontario.....	9,606,877 19	558,346 78	1,070,444 57		119,036 77	3,890,930 74	144,285 13	718,014 00	146,525 20	149,618 60						1,092 91
																1,982,317 02
																1,377 00
																166,648 65
																4,641,674 15
																3,448 80
																16,423,740 98

[illegible]

No. 2—Collection in Ports on account of Excise Duties. Amount collected during fiscal year ended March 31, 1930—*Con.*

Ports	Spirits		Malt		Cigars	Manufactured Tobacco	Foreign Leaf	Malt Liquor	Licences	Total
	Potable	Non-potable								
	\$	cts.	\$	cts.	\$	cts.	Unstemmed	Stemmed	\$	cts.
Calgary.....	184,834 60	3,946 10	198,815 00	288 90	110 00	227 20	18 00	3,574 50	689 00	392,503 30
Edmonton.....	148,988 13	5,553 01	90,288 00	100,230 00	110 00	227 20	18 00	13,614 75	379 00	258,822 80
Lethbridge.....	333,822 73	9,499 11	389,333 00	288 90	110 00	227 20	18 00	44,089 50	180 00	144,499 50
Total Alberta.....										
Crabbrook.....			12,155 00						50 00	12,205 00
Fernie.....			14,205 00						100 00	14,305 00
Nanaimo.....			14,452 14	170 10		374 00			50 00	14,594 10
Nelson.....			63,450 06	340 14		535 60	103 80	3,515 85	100 00	14,552 14
New Westminster.....	184,354 42	4,440 00	2,880 00						550 00	252,849 87
Penticton.....			900 00						32 00	4,492 00
Revelstoke.....			116,708 88	4,754 30		3,240 00			100 00	2,980 00
Rossland.....			67,815 00	129 61		151 40				900 00
Vancouver.....	1,012,128 71	27,766 14	116,708 88			6,198 00	4,092 00	1,098 75	2,210 50	1,178,257 25
Victoria.....	157,762 61	900 95	67,815 00				151 40		495 00	227,254 57
Total British Columbia.....										
	1,354,245 74	28,667 09	297,067 05	5,394 15		6,198 00	4,301 00	4,614 60	3,707 50	1,708,390 93
Dawson.....	2,250 60								50 00	2,300 60
White Horse.....	2,534 58									2,534 58
Total Yukon.....										
	4,785 18								50 00	4,835 18
Grand Total.....										
	17,354,066 69	1,173,388 67	4,493,801 29	589,720 36	30,223,822 91	4,439,012 17	6,596,128 35	410,960 75	48,521 50	65,671,521 14
SUMMARY										
Ontario.....	9,606,877 19	558,346 78	1,070,444 57	119,036 77	3,890,830 74	144,285 13	718,014 00	146,525 20	19,662 00	16,423,740 98
Quebec.....	5,205,400 47	412,230 78	2,141,339 65	464,153 37	26,332,892 17	4,252,338 84	5,870,886 15	260,200 75	14,952 00	45,009,082 83
New Brunswick.....	215,024 43	31,347 05	22,539 18	324 19			178 00		1,127 00	270,539 85
Nova Scotia.....	36,050 80	6,461 92	26,940 00	522 98			308 00	21 00	616 00	70,920 70
P. E. Island.....		269 28				34,827 20			179 00	35,275 48
Manitoba.....	322,590 85	122,480 66	413,866 44			1,263 00	2,214 00		5,675 00	886,733 00
Saskatchewan.....	275,269 30	4,086 00	132,281 40						1,305 00	466,176 40
Alberta.....	333,822 73	9,499 11	389,333 00	288 90		110 00	227 20	18 00	1,248 00	795,825 69
British Columbia.....	1,354,245 74	28,667 09	297,067 05	5,394 15		6,198 00	4,301 00	4,614 60	3,707 50	1,708,390 93
Yukon.....	4,785 18								50 00	4,835 18
Total.....										
	17,354,066 69	1,173,388 67	4,493,801 29	589,720 36	30,223,822 91	4,439,012 17	6,596,128 35	410,960 75	48,521 50	65,671,521 14

No. 3—COMPARATIVE STATEMENT of Excise Duties Collected during the fiscal years ended March 31, 1929 and 1930

Provinces	Spirits		Malt		Cigars	Manufactured Tobacco		Foreign Leaf		Canada Twist	Malt Liquor	Licences	Total		
	Potable	Non-potable	\$	cts.		\$	cts.	Cigarettes	Tobacco					Unstemmed	Stemmed
1929															
Ontario.....	11,106,886 08	566,404 17	1,299,501 61	124,068 63	3,210,996 01	153,380 00	700,211 50	153,545 40	12 00	188,522 85	19,164 50	17,522,692 75			
Quebec.....	4,348,630 86	395,553 87	2,173,477 50	441,259 96	24,439,711 96	4,199,773 27	6,143,217 60	245,126 60		60,487 50	15,036 50	42,482,275 62			
New Brunswick.....	174,360 16	29,297 33	13,109 73	367 47			185 20	63 60			1,179 00	218,562 49			
Nova Scotia.....	19,903 20	5,822 17	22,860 00	651 16			504 00				559 00	49,799 53			
P.E. Island.....		99 00				36,099 00	240 40				150 00	36,589 00			
Manitoba.....	322,461 63	126,121 20	383,949 30			1,750 40	2,977 30			16,525 65	3,208 00	856,993 48			
Saskatchewan.....	443,238 07	160 40	174,424 98							17,892 45	864 00	636,579 90			
Alberta.....	343,468 65	15,578 28	407,472 30	323 70			235 80	3 00		31,627 35	1,410 00	800,119 08			
British Columbia.....	1,412,551 11	26,081 42	280,499 28	6,174 17		3,715 40	4,830 80	6,373 80		31,484 25	3,402 00	1,775,112 23			
Yukon.....	1,311 07									70 00		1,381 07			
Totals.....	18,172,809 03	1,164,617 84	4,755,294 70	572,845 09	27,650,707 97	4,394,718 67	6,852,402 60	405,112 40	12 00	346,540 05	45,043 00	61,360,103 35			
1930															
Ontario.....	9,606,877 19	558,346 78	1,070,444 57	119,036 77	3,890,930 74	144,285 13	718,014 00	146,525 20		149,618 60	19,662 00	16,423,740 98			
Quebec.....	5,205,400 47	412,230 78	2,141,329 65	464,153 37	26,332,892 17	4,252,328 84	5,870,886 15	260,200 75		54,708 75	14,952 00	45,009,082 93			
New Brunswick.....	215,024 43	31,347 05	22,539 18	324 19			178 00				1,127 00	270,539 85			
Nova Scotia.....	36,050 80	6,461 92	26,940 00	522 98			308 00	21 00			616 00	70,920 70			
P.E. Island.....		269 28				34,827 20					179 00	35,275 48			
Manitoba.....	322,590 85	122,480 66	413,866 44			1,263 00	2,214 00			18,643 05	5,675 00	886,733 00			
Saskatchewan.....	275,269 30	4,086 00	132,281 40							53,234 70	1,305 00	466,176 40			
Alberta.....	333,822 73	9,499 11	389,333 00	288 90		110 00	227 20	18 00		61,278 75	1,248 00	795,825 69			
British Columbia.....	1,354,245 74	28,667 09	297,067 05	5,394 15		6,198 00	4,301 00	4,195 80		4,614 60	3,707 50	1,708,390 93			
Yukon.....	4,785 18										50 00	4,835 13			
Totals.....	17,354,066 69	1,173,388 67	4,493,801 29	589,720 36	30,223,822 91	4,439,012 17	6,596,128 35	410,960 75		342,098 45	48,521 50	65,671,521 14			

EXCISE DUTY REVENUES

No. 4—COMPARATIVE STATEMENT of Receipts for 1927-28, 1928-29 and 1929-30

		Totals
		\$ cts.
Spirits.....	{ 1927-28 1928-29 1929-30	18,261,412 32 19,337,426 87 18,527,455 36
Malt Liquor.....	{ 1927-28 1928-29 1929-30	234,220 05 346,540 05 342,098 45
Malt.....	{ 1927-28 1928-29 1929-30	4,274,966 11 4,755,294 70 4,493,801 29
Tobacco.....	{ 1927-28 1928-29 1929-30	34,699,538 85 39,302,953 64 41,669,924 18
Cigars.....	{ 1927-28 1928-29 1929-30	545,353 49 572,845 09 559,720 36
Licences.....	{ 1927-28 1928-29 1929-30	46,594 50 45,043 00 48,521 50
Total Revenue.....	{ 1927-28 1928-29 1929-30	58,062,085 32 64,360,103 35 65,671,521 14

No. 5—STATEMENT showing the quantities of the several articles subject to Excise Duty, entered for consumption during the fiscal years ended March 31, 1928, 1929, 1930, and the duty accrued thereon

Articles subject to Excise Duty	1928				1929				1930			
	Quantities		Duty		Quantities		Duty		Quantities		Duty	
	Ex-manu- factory	Ex-ware- house	Totals	\$ cts.	Ex-manu- factory	Ex-ware- house	Totals	\$ cts.	Ex-manu- factory	Ex-ware- house	Totals	\$ cts.
Spirits.....	P. Gals. 3,818	P. Gals. 2,965,979	P. Gals. 2,969,797	18,261,412 32	P. Gals. 131	P. Gals. 3,051,677	P. Gals. 3,051,808	19,337,973 75	P. Gals. 312	P. Gals. 2,980,370	P. Gals. 2,980,682	18,526,908 48
Malt liquor, the duty being paid on malt..	Gals. 57,047,374	Gals. 1,343,986	Gals. 58,391,360	234,220 05	Gals. 64,006,514	Gals. 1,712,615	Gals. 65,719,129	346,540 05	Gals. 61,253,493	Gals. 1,738,663	Gals. 62,992,156	342,093 45
Malt.....	Lb. 383,400	Lb. 142,160,457	Lb. 142,543,947	4,274,966 11	Lb. 3,203	Lb. 158,486,816	Lb. 158,490,019	4,755,294 70	Lb. 2,896	Lb. 149,743,815	Lb. 149,746,711	4,493,801 29
Cigars.....	No. 87,743,934	No. 93,986,680	No. 181,730,614	545,395 51	No. 93,205,051	No. 97,776,115	No. 190,981,166	572,682 92	No. 91,859,410	No. 104,392,547	No. 196,251,957	588,977 14
Cigarettes.....	Lb. 3,760,184,475	Lb. 166,837,850	Lb. 3,927,022,325	23,569,641 00	Lb. 3,857,487,995	Lb. 750,012,430	Lb. 4,607,500,425	27,652,168 82	Lb. 2,829,435,865	Lb. 2,206,442,790	Lb. 5,035,878,655	30,222,362 00
Canada Twist.....	Lb. 19,456,367	Lb. 1,505,750	Lb. 20,962,117	4,192,423 40	Lb. 19,853,473	Lb. 1,125,729½	Lb. 20,979,202½	4,196,305 58	Lb. 20,530,934	Lb. 635,820	Lb. 21,166,754	4,233,350 80
Tobacco.....	945,630		945,630	189,126 00	993,959		993,959	198,791 80	1,028,701		1,028,701	205,740 20
Totals.....	20,401,997	1,505,750	21,907,747	27,951,190 40	20,847,492	1,125,729½	21,973,221½	32,047,278 20	21,559,635	635,820	22,195,455	34,661,453 00
Raw leaf tobacco, for- eign.....	16,539,478		16,539,478	6,743,612 95				7,257,515 00				7,007,089 10
Other materials.....	20,570		20,570	4,731 10								
Total duties on tobac- co and cigarettes.....												
Licences, spirits.....				34,699,534 45				39,304,763 20				41,668,542 10
" malt liquor.....				6,125 00				6,625 00				7,750 00
" malt.....				5,025 00				4,900 00				5,450 00
" cigars.....				2,100 00				1,650 00				1,850 00
" tobacco.....				4,500 00				4,200 00				4,675 00
" sundry.....				2,825 00				2,825 00				2,875 00
				26,019 50				24,843 00				26,421 50
Grand total duty.....				58,062,122 94				64,362,327 62				65,668,848 96

No. 6—COMPARATIVE STATEMENT of Manufactures for

Provinces	Licences		Material Taken				
	No.	Fees	Grain				
			Malt	Indian Corn	Rye	Oats	Rice
1929		\$	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Ontario.....	9	2,500	24,133,471	58,179,948	51,273,619	228,102	43,123
Quebec.....	9	2,375	8,800,131	28,946,450	15,114,081	.....	.....
New Brunswick.....	1	250	.....	.....	.....	.....	.....
Manitoba.....	2	500	95,524	751,429	51,101	.....	.....
British Columbia.....	4	1,000	6,141,246	18,234,489	14,010,735	.....	41,400
Totals.....	25	6,625	39,170,372	106,112,316	80,449,536	228,102	84,523
1930							
Ontario.....	11	3,000	24,577,098	66,428,068	48,277,210	257,510	.....
Quebec.....	10	2,500	13,987,223	38,867,348	23,865,368	.....	.....
New Brunswick.....	1	250	.....	.....	.....	.....	.....
Manitoba.....	2	1,000	62,898	197,687	222,399	.....	.....
British Columbia.....	4	1,000	3,437,000	9,449,888	5,710,218	.....	58,330
Totals.....	28	7,750	42,064,219	114,942,991	78,075,195	257,510	58,330

SPIRITS

the Fiscal Years ended March 31, 1929 and 1930

for Use		Used in spirits manufactured		Proof spirits manufactured	Duty collected ex-manufactory on deficiencies and assessments		Total duty collected ex-manu- factory including licence fees
Total grain	Molasses							Grain	Molasses
Lbs.	Lbs.	Lbs.	Lbs.	P. Galls.	P. Galls.	\$ cts.	\$ cts.
133,858,263	35,835,824	133,713,064	36,287,024	9,797,340.26	23.64	212 76	2,712 76
52,860,662	38,299,807	52,593,332	38,299,807	4,611,139.22	107.01	965 18	3,340 18
.....	2,267,550	.....	2,267,550	86,110.71	.....	.....	250 00
898,054	.....	850,006	.....	45,208.81	.....	.....	500 00
38,427,870	1,696,420	38,256,372	1,683,520	2,276,512 68	.....	.....	1,000 00
226,044,849	78,099,601	225,412,774	78,537,901	16,816,311.68	130.65	1,177 94	7,802 94
139,539,886	30,230,400	140,443,699	30,004,800	9,792,809.16	138.62	1,247 58	4,247 58
76,719,939	26,602,047	76,252,129	26,602,047	5,676,092.73	126.41	1,137 69	3,637 69
.....	.....	.....	.....	345.17	.....	.....	250 00
482,984	.....	531,032	.....	26,143.53	.....	.....	1,000 00
18,655,436	4,204,160	18,826,936	4,195,560	1,318,042.64	47.53	427 77	1,427 77
235,398,245	61,036,607	236,053,796	60,802,407	16,813,433.23	312.56	2,813 04	10,563 04

SPIRITS

No. 7—COMPARATIVE STATEMENT showing the transactions in the Distilleries in the Dominion of Canada, during the fiscal years ended March 31, 1929 and 1930

Provinces	In process, including deficiencies brought forward	Manufactured, including surpluses	Returned to distillery for redistillation	Received from other sources, duty paid	Totals	Warehoused	Spirits and fusel oil written off	Deficiencies on which duty was collected	In process, including deficiencies, carried forward	Totals
	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.
1929										
Ontario.....	380,078 24	9,797,340 26	1,413,714 63	72,322 58	11,663,455 71	11,134,855 01	7,911 45	23 64	520,665 61	11,663,455 71
Quebec.....	211,780 73	4,611,139 22	468,843 75	205,695 90	5,497,459 60	5,123,926 33	10,167 65	107 01	363,258 61	5,497,459 60
New Brunswick.....	22,372 67	86,110 71	.....	.....	108,483 38	51,684 70	24 85	.....	56,773 83	108,483 38
Manitoba.....	13,308 09	45,208 81	159,551 01	662 56	218,730 47	201,776 35	140 13	.....	16,813 99	218,730 47
British Columbia.....	57,578 66	2,276,512 68	16,433 24	15,316 60	2,365,841 18	2,282,127 69	392 30	.....	83,321 19	2,365,841 18
Totals.....	685,118 39	16,816,311 68	2,058,542 63	293,997 64	19,853,970 34	18,794,370 08	18,636 38	130 65	1,040,833 23	19,853,970 34
1930										
Ontario.....	520,665 61	9,792,809 16	1,005,477 50	90,365 27	11,409,317 54	10,942,589 72	9,277 24	138 62	457,311 96	11,409,317 54
Quebec.....	363,258 61	5,676,092 73	837,000 53	210,560 97	7,086,912 84	6,821,183 73	11,458 53	126 41	254,144 17	7,086,912 84
New Brunswick.....	56,773 83	26,345 17	.....	57,119 00	57,119 00	.....	.....	.....	57,119 00	57,119 00
Manitoba.....	16,813 99	26,143 53	114,941 12	717 43	158,616 07	148,068 68	.....	.....	10,547 39	158,616 07
British Columbia.....	83,321 19	1,318,042 64	28,488 58	25,629 51	1,455,481 92	1,357,183 07	420 00	47 53	97,831 32	1,455,481 92
Totals.....	1,040,833 23	16,813,433 23	1,985,997 73	327,273 18	20,167,447 37	19,269,025 20	21,155 77	312 56	876,953 84	20,167,447 37

DR.

SPIRITS

No. 8—STATEMENT of Warehouse Returns for the Fiscal Year ended
March 31, 1930

Ports	Remaining in Warehouse from last year	Warehoused	Imported	Received from other Ports		Totals
				Removed during year	In Transit last year	
Amherstburg.....	P. Galls. 1,465.569	P. Galls. 305,319.02	P. Galls.	P. Galls. 228,884.70	P. Galls.	P. Galls. 535,669.41
Belleville.....	7,131,186.45	3,876,279.17		40,739.55	969.26	11,049,174.43
Brantford.....	145.20			141.90		287.10
Bridgeburg.....	252.05		501.40	1,140.15		1,140.15
Chatham.....	1,306.80			4,801.50		753.45
Cobourg.....				212.85		6,108.30
Cornwall.....	371.25			22,553.81		212.85
Fort William.....	345.92		3,605.49	21,886.57	780.45	22,925.01
Hamilton.....	283.80			16,483.50		26,618.43
Kingston.....	1,703,176.35	714,674.65		47,578.70		16,767.30
Kitchener.....	200,831.44	194,221.71		2,292.32		2,465,429.70
Lindsay.....	298.65			3,672.90	141.90	307,345.47
London.....		5,539.17		403.10		4,113.45
Niagara Falls.....						5,942.27
North Bay.....	10,621.95		2,685.10	66,956.43	371.25	80,634.73
Ottawa.....				288.75		288.75
Peterboro.....				115.50		115.50
Port Hope.....	350,470.34			169,813.53		520,283.87
Prescott.....	186,454.53	93,240.10		148.50		279,843.13
Sarnia.....				148.73		148.73
Stratford.....	72.72			221.35		294.07
St. Thomas.....	3,843,295.99	1,795,224.46	1,720.17	395,215.45	3,965.05	6,039,421.12
Toronto.....	3,692.03	5,046.96		15,016.27		23,755.26
Welland.....	6,639,102.31	3,953,044.48		368,665.41	9,308.67	10,970,120.87
Woodstock.....	354.75			11,564.85	354.75	12,274.35
Total, Ontario.....	20,073,728.22	10,942,589.72	8,512.16	1,418,946.32	15,891.33	32,469,667.75
Chicoutimi.....		12,170.25		5,037.45	72.60	5,110.05
Montreal.....	6,583,216.28	6,791,224.35	921.70	379,933.65	20,988.00	13,778,470.03
Quebec.....	16,462.63	115.80		168,728.47	445.50	185,636.60
Shawinigan Falls.....				82.50		82.50
Sherbrooke.....	112.20			1,584.00		1,696.20
Sorel.....	56,560.61					58,560.61
St. Hyacinthe.....	119,329.16	29,959.38				149,288.54
St. Johns.....				1,262.25		1,262.25
Sutton.....				82.50		82.50
Three Rivers.....	28.57			74.25		102.82
Valleyfield.....				212.85		212.85
Total, Quebec.....	6,777,709.45	6,821,183.73	921.70	556,997.92	21,506.10	14,180,504.95
Fredericton.....	1,283.46	12,170.25		24,026.76		25,310.22
St. John.....	13,650.15	115.80		13,079.55	371.25	32,346.74
St. Stephen.....	70.95	15,245.79		787.05		787.05
Woodstock.....				3,953.40	354.75	4,379.10
Total, New Brunswick.....	15,004.56	15,245.79		41,846.76	726.00	62,823.11
Annapolis Royal.....				396.00		396.00
Halifax.....	877.70			7,965.80		8,843.50
Yarmouth.....				70.95	70.95	141.90
Total, Nova Scotia.....	877.70			8,432.75	70.95	9,381.40
Charlottetown, P.E.I.....				41.25	70.95	112.20
Winnipeg, Man.....	147,230.18	148,068.68		169,550.92	11,395.28	476,245.06
Regina.....	13,850.49			36,288.62		50,139.11
Saskatoon.....				425.70		425.70
Total, Saskatchewan.....	13,850.49			36,714.32		50,564.81
Calgary.....	10,504.78			25,656.50		36,161.28
Edmonton.....	6,834.32			26,815.31	228.15	33,877.78
Total, Alberta.....	17,339.10			52,471.81	228.15	70,039.06
New Westminster.....	2,266,956.97	983,392.44		67.54		3,250,416.95
Vancouver.....	1,472,573.21	373,790.63		62,224.30	898.48	1,909,486.62
Victoria.....	1,920.22			20,857.46		22,777.68
Total, British Columbia.....	3,741,450.40	1,357,183.07		83,149.30	898.48	5,182,681.25
Dawson.....	207.82			140.81		348.63
White Horse.....				281.62		281.62
Total, Yukon.....	207.82			422.43		630.25
Sundries.....	8,612.54					8,612.54
Grand Totals.....	30,796,010.46	19,269,025.20	9,433.86	2,368,573.78	50,787.24	52,501,262.38

†Seizures. ‡Surplus.

No. 8—STATEMENT of Warehouse Returns for the

Ports	Entered for Consumption			Removed to other Ports	
	Quantity	Used in Bonded Factories	Duty	Warehoused in Ports to which removed	In Transit
	P. Galls.	P. Galls.	\$ cts.	P. Galls.	P. Galls.
Amherstburg.....	78,857-80	72,526-77	727,775 90		
Belleville.....	159,987-27		1,435,793 71	516,119-68	1,753-21
Brantford.....		145-20	348 48		
Bridgeburg.....		1,140-15	2,736 36		
Chatham.....		457-56	1,445 54		
Cobourg.....		6,034-05	14,481 72		
Cornwall.....		212-85	510 84		
Fort William.....	16,012-85		144,199 81		
Hamilton.....	368-07	24,697-35	29,918 61	283-80	
Kingston.....		16,483-50	4,821 16		
Kitchener.....	135,611-30	297-00	1,204,009 63	96,620-74	4,042-51
Lindsay.....	8,314-54	295-35	75,891 15	40,302-84	
London.....		3,819-75	9,191 75		
Niagara Falls.....		403-10	967 44		
North Bay.....			2 98		
Ottawa.....	38,710-69	32,401-48	420,585 58		
Peterboro.....		165-00	400 96		
Port Hope.....		115-50	277 20		
Prescott.....	24,449-43		220,155 40	45,248-99	
Sarnia.....					
Stratford.....		148-73	359 95		
St. Thomas.....		294-07	220 56		
Toronto.....	97,146-22	310,131-39	1,216,652 83	440,393-66	277-20
Welland.....	17,265 81		153,021-51	1,058-93	
Windsor.....	488,823-12	29,776-44	4,496,761 52	281,480-74	4,320-99
Woodstock.....		12,274-35	3,448 80		
Total, Ontario.....	1,065,547-09	511,819-59	10,163,976 39	1,421,509-38	10,393-91
Chicoutimi.....		5,035-80	10,498 73		
Montreal.....	476,787-13	291,356-17	4,661,781 79	541,950-52	8,405-10
Quebec.....	101,291-62	57,033-28	934,393 87	110-12	
Shawinigan Falls.....		82-50	61 88		
Sherbrooke.....		1,442-10	3,631 32		
Sorel.....	246-75		2,225 37	51,217-62	
St. Hyacinthe.....	92-77		2,399 85	80,753-71	6,601-49
St. Johns.....		1,262-25	189 34		
Sutton.....		82-50	198 00		
Three Rivers.....		74-25	55 69		
Valleyfield.....		212-85	510 84		
Total, Quebec.....	578,418-27	356,581-70	5,615,946 68	674,031-97	15,006-59
Fredericton.....	23,875-93		215,024 43		
St. John.....		19,064-54	19,113 57		
St. Stephen.....		787-05	1,888 92		
Woodstock.....		4,308-15	10,339 56		
Total, New Brunswick.....	23,875-93	24,159-74	246,371 48		
Annapolis Royal.....		396-00	950 40		
Halifax.....	3,998-62	2,154-57	41,221 76		
Yarmouth.....		141-90	340 56		
Total, Nova Scotia.....	3,998-62	2,692-47	42,512 72		
Charlottetown, P.E.I.....		112-20	269 28		
Winnipeg, Man.....	35,966-95	109,322-10	445,071 51	32,277-14	
Regina.....	30,570-03	13,327-71	279,036 01		
Saskatoon.....		425-70	319 29		
Total, Saskatchewan.....	30,570-03	13,753-41	279,355 30		
Calgary.....	20,523-54	7,207-54	188,780 70	348-87	
Edmonton.....	16,542-03	10,609-00	154,541 14	659-06	
Total, Alberta.....	37,065-57	17,816-54	343,321 84	1,007-93	
New Westminster.....	20,358-98		184,354 42	196,483-92	5,906-90
Vancouver.....	112,220-30	17,678-65	1,039,467 08	42,853-39	28,614-34
Victoria.....	17,509-79	370-76	158,663 56	410-05	
Total, British Columbia.....	150,089-07	18,049-41	1,382,485 06	239,747-36	34,521-24
Dawson.....	250-07		2,250 60		
White Horse.....	281-62		2,534 58		
Total, Yukon.....	531-69		4,785 18		
Sundries.....					
Grand Totals.....	1,926,063-22	1,054,307-16	18,524,095 44	2,368,573-78	59,921-74

SPIRITS

Cr.

Fiscal Year ended March 31, 1930

Taken for Redistillation	Free		Exported	Remaining in Warehouse	Totals
	Legal Allowance	Other			
P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.
581,635-31	129-80 72,118-32	47-46 427,898-50	332,156-76	384,107-58 8,957,505-38 141-90	535,669-41 11,049,174-43 287-10
				295-89 74-25	1,140-15 753-45
				6,912-21 1,269-21	22,925-06 26,618-43
				283-80	16,767-30
5,336-11 36,426-78	43,086-67 641-30	2,797-75 16,463-55	103-95 15-74	2,177,533-67 294,885-37	2,465,429-70 397,345-47
				293-70 5,539-17	4,113-45 5,942-27
		49-50		9,473-07 123-75	80,634-73 288-75
148-50	7,074-67	92,171-03	3,391-58	347,948-17 279,694-63	520,283-87 279,843-13
				148-73	148-73
21,729-09	26,822-38	818,229-86	106,137-07	4,218,554-25	294-07 6,039,421-12
360,201-71	127,608-29	4,365-10 27-166-21	245,612-95	1,065-42 9,405-130-42	23,755-26 10,970,120-87
1,005,477-50	277,481-43	1,389,188-96	687,418-05	26,090,831-84	12,274-35 32,459,667-75
805,489-39	168,501-85	1,342,420-36 1,691-25	879,495-06 12-59	74-25 9,264,064-45 25,497-74	5,110-05 13,778,470-03 185,636-60
	7,096-24 2,743-39	22,882-53		254-10 4,703-51	82-50 1,696-20 58,560-61
31,511-14					149,288-54 1,262-25
				28-57	82-50 102-82
837,000-53	178,341-48	1,366,994-14	879,507-65	9,294,622-62	212-85 14,180,504-95
			1-42	1,432-87 13,282-20	25,310-22 32,346-74
				70-95	787-05 4,379-10
			1-42	14,786-02	62,823-11
			72-05	2,618-26	396-00 8,843-50
			72-05	2,618-26	141-90 9,381-40
114,941-12	2,033-91	46,562-64			112-20 476,245-06
				135,141-20	
				6,241-37	50,139-11 425-70
				6,241-37	50,564-81
				8,081-33 6,067-69	36,161-28 33,877-78
				14,149-02	70,039-06
27,876-76 611-82	48,880-52 38,101-19	85,001-22 72,337-87	120,217-10 122,963-20 17-29	2,745,691-55 1,474,105-86 4,469-79	3,250,416-95 1,909,486-62 22,777-68
28,488-58	86,981-71	157,339-09	243,197-59	4,224,267-20	5,182,681-25
				98-56	348-63 281-62
				98-56	630-25
				8,612-54	8,612-54
1,985,907-73	544,838-53	2,960,084-83	1,810,196-76	39,791,368-63	52,501,262-88

SPIRITS

DR. NO. 9—COMPARATIVE STATEMENT OF Warehouse Returns for the Fiscal Years ended March 31, 1929 and 1930

Provinces	Remaining in Warehouse from last year	Warehoused	Imported	Received from other Ports		Totals
				Removed during year	In Transit last year	
	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.	P. Galls.
1929						
Ontario.....	15,086,225.95	11,134,855.01	32,551.53	1,348,552.32	128.70	27,602,313.51
Quebec.....	4,492,782.27	5,123,926.33	492.33	582,181.77	2,305.44	10,201,707.87
New Brunswick.....	13,045.50	51,684.70		39,476.77	1,593.90	105,800.87
Nova Scotia.....	618.15			4,695.56		5,313.71
Prince Edward Island.....	204,830.48	201,776.35		41.25		41.25
Manitoba.....	8,138.30			200,591.66	12,268.13	619,466.62
Saskatchewan.....	18,626.85			52,677.39	2,860.23	63,675.92
Alberta.....	1,915,884.94	2,282,127.69		73,002.43		91,629.28
British Columbia.....	76.19			62,299.62		4,260,312.25
Yukon.....	8,612.54			277.10		353.29
Sundries.....						8,612.54
Grand Totals.....	21,748,841.17	18,794,370.98	33,043.86	2,363,795.87	19,156.40	42,959,227.11
1930						
Ontario.....	20,073,728.22	10,942,589.72	8,512.16	1,418,946.32	15,891.33	32,459,667.75
Quebec.....	6,777,709.45	6,821,183.73	921.70	556,997.92	21,506.10	14,180,504.95
New Brunswick.....	15,004.56	15,245.79		41,846.76	726.00	62,823.11
Nova Scotia.....	877.70			8,432.75	70.95	9,381.40
Prince Edward Island.....	147,230.18	148,068.68		41.25	70.95	112.20
Manitoba.....	13,850.49			169,550.92	11,395.28	476,245.06
Saskatchewan.....	17,339.10			36,714.32		50,564.81
Alberta.....	3,741,450.40	1,357,183.07		52,471.81	228.15	70,039.06
British Columbia.....	297.82			83,149.30	898.48	5,182,681.25
Yukon.....	8,612.54			422.43		630.25
Sundries.....						8,612.54
Grand Totals.....	30,796,010.46	19,269,025.20	9,433.86	2,368,573.78	50,787.24	52,591,262.38

†Seizures. ‡Surplus.

Provinces	Entered for Consumption			Removed to other ports		Taken for Redistillation	Free			Exported	Remaining in Warehouse	Totals
	Quantity	Used in Bonded Factories	Duty \$ cts.	P. Galls.	Warehoused in ports to which removed	P. Galls.	In Transit	P. Galls.	Legal Allowance	Other	P. Galls.	P. Galls.
1929												
Ontario.....	1,234,502-82	497,047-33	11,673,077-49	1,664,875-81	24,174-99	1,413,714-63	363,284-80	1,504,211-99			20,073,728-22	27,602,313-51
Quebec.....	480,800-59	328,133-36	4,743,766-43	504,534-89	13,267-54	468,843-75	65,079-10	1,303,710-45			6,777,619-45	10,201,707-87
New Brunswick.....	19,348-23	21,205-70	203,657-49	3,901-41			126-38	46,214-59			15,004-56	105,800-87
Nova Scotia.....	2,209-51	2,217-57	25,225-37							8-93	877-70	5,313-71
Prince Edward Island.....		41-25	99-00									41-25
Manitoba.....	35,998-68	135,932-55	448,582-83	77,549-19	2,768-65	159,551-01	9,576-58	50,859-78			147,230-18	619,466-62
Saskatchewan.....	49,231-43	49,231-43	443,398-47								13,850-49	63,675-92
Alberta.....	38,133-24	35,060-63	339,046-93	1,036-31							17,339-10	91,629-28
British Columbia.....	156,631-74	14,642-67	1,438,632-53	111,838-26	10,576-06	16,433-24	42,959-25	109,205-21			3,741,450-40	4,260,312-25
Yukon.....	145-47		1,309-27								207-82	353-29
Sundries.....											8,612-54	8,612-54
Totals.....	2,016,801-71	1,034,875-26	19,336,795-81	2,363,795-87	50,787-24	2,058,542-63	481,026-11	3,014,302-02			39,795,920-46	42,959,227-11
1930												
Ontario.....	1,065,547-09	511,819-59	10,163,976-39	1,421,509-38	10,393-91	1,005,477-50	277,481-43	1,389,188-96			26,090,831-84	32,459,667-75
Quebec.....	578,418-27	356,581-70	5,615,946-68	674,031-97	13,006-59	837,000-53	178,341-48	1,366,994-14			9,294,622-62	14,180,504-95
New Brunswick.....	23,875-93	24,159-74	246,371-48							1-42	14,736-02	62,823-11
Nova Scotia.....	3,998-62	2,692-47	42,512-72							72-05	2,618-26	9,381-40
Prince Edward Island.....		112-20	269-28									112-20
Manitoba.....	35,966-95	109,322-10	445,071-51	32,277-14		114,941-12	2,033-91	46,562-64			135,141-20	476,245-06
Saskatchewan.....	30,570-03	13,753-41	279,355-36								6,241-37	50,564-81
Alberta.....	37,065-57	17,816-54	343,331-84	1,007-93							14,149-02	70,039-06
British Columbia.....	150,089-07	18,049-41	1,382,485-06	239,747-36	34,521-24	28,488-58	86,981-71	157,339-09			4,224,267-20	5,182,681-25
Yukon.....	531-69		4,785-18								98-56	630-25
Sundries.....											8,612-54	8,612-54
Grand Totals.....	1,926,063-22	1,054,307-16	18,524,095-44	2,368,573-78	59,921-74	1,985,907-73	544,838-53	2,960,084-83			39,791,368-63	52,501,262-38

Total duty collected ex-manufacture and ex-warehouse.....

1929

1930

\$19,337,973 75

\$18,526,908 48

6,625 00

7,750 00

\$19,344,598 75

\$18,534,658 48

MALT

No. 10—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended March 31, 1929 and 1930

Provinces	Licences		Grain Steeped	Grain Used in Malt Manufactured	Malt			Total Duty Collected Ex-Manufactory including Licence Fees	
	No.	Fees			Manufactured	Paid Duty	Warehoused		
1929		\$	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$	cts.
Ontario.....	3	600	11,036,100	9,755,900	8,147,770	.....	8,147,770	600	00
Quebec.....	1	200	42,620,200	42,687,400	34,276,665	.....	34,276,665	200	00
Manitoba.....	2	400	112,504,810	110,941,450	92,357,285	.....	92,357,285	400	00
Alberta.....	1	200	51,068,520	51,058,920	42,270,630	.....	42,270,630	200	00
British Columbia...	2	250	2,153,641	2,138,881	1,849,581	3,203	1,846,378	346	09
Totals.....	9	1,650	219,383,271	216,582,551	178,901,931	3,203	178,898,723	1,746	09
1930									
Ontario.....	2	400	56,946,800	56,814,200	47,034,155	.....	47,034,155	400	00
Quebec.....	1	200	40,389,100	40,288,300	32,749,795	.....	32,749,795	200	00
Manitoba.....	2	800	106,028,640	108,096,360	91,302,280	.....	91,302,280	800	00
Alberta.....	1	200	34,124,020	35,655,220	29,746,490	.....	29,746,490	200	00
British Columbia...	2	250	1,002,534	1,002,534	891,101	2,896	888,205	336	88
Totals.....	8	1,850	238,491,094	241,856,614	201,723,821	2,896	201,720,925	1,936	88

MALT

DR. No. 11—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1929 and 1930 CR.

Provinces	Remain- ing in Ware- house from last year	Ware- house d	In- creases	Received from other Ports		Totals	Entered for Consumption		Removed to other Ports		Exported	Free	Remain- ing in Ware- house	Totals
				Removed during year	In Transit last year		Quantity	Duty	Warehoused in Ports to which Removed	In Transit				
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	\$ cts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1929														
Ontario.....	Bondex 3,999,527	37,145	301,435	34,011,380	694,220	79,155,858	43,266,279	1,299,501 61	.....	.....	269,544	29,469,380	6,150,655	79,155,858
Quebec.....	4,353,915	8,147,770	77,063	40,345,080	2,300,000	86,593,824	72,498,387	1,173,477 50	714,800	.....	1,469,004	8,694,622	3,217,011	86,593,824
New Brunswick.....	56,000	34,276,665	171	379,500	54,000	490,991	436,991	13,109 73	.....	.....	.....	.....	54,000	490,991
Nova Scotia.....	40,000	.....	.....	702,000	54,000	796,000	762,000	22,860 00	.....	.....	.....	.....	34,000	796,000
Manitoba.....	3,907,169	92,357,285	436,538	501,840	100,000	97,873,388	12,800,150	383,949 30	66,069,260	2,606,300	749,275	95,524	15,552,879	97,873,388
Saskatchewan.....	4,687,170	42,270,630	165,580	4,376,270	100,000	5,763,726	5,763,726	174,424 98	34,973,030	1,025,500	.....	117,060	6,138,500	5,763,726
Alberta.....	410,011	1,846,378	17,235	7,838,620	50,000	55,866,600	13,612,510	407,472 30	640,514	.....	.....	6,175,851	1,599,833	55,866,600
B. Columbia.....	.....	.....	.....	14,242,914	150,000	17,762,971	9,346,773	280,403 19	.....	.....	.....	.....	.....	17,762,971
Totals.....	Bondex 17,453,792	37,145 178,896,728	98,422	102,397,604	3,402,220	344,303,358	158,486,816	4,755,198 61	102,397,604	3,631,800	2,487,823	44,552,437	32,746,878	344,303,358
1930														
Ontario.....	Bondex 6,150,655	247,471	270,139	35,376,900	1,481,550	109,454,786	35,610,197	1,070,444 57	25,073,385	540,000	1,035,077	30,778,384	16,417,743	109,454,786
Quebec.....	3,217,011	32,749,795	187,365	53,049,760	1,780,800	93,589,493	71,377,655	2,141,330 65	402,975	.....	746,268	13,996,705	7,065,890	93,589,493
New Brunswick.....	54,000	.....	175	763,000	.....	817,175	751,306	22,539 18	.....	.....	.....	.....	65,869	817,175
Nova Scotia.....	34,000	.....	.....	864,000	.....	898,000	898,000	26,940 00	.....	.....	.....	.....	.....	898,000
Manitoba.....	15,552,879	91,302,280	124,080	411,000	400	108,086,869	13,849,938	413,866 44	64,968,000	1,103,850	1,419,530	62,898	26,682,653	108,086,869
Saskatchewan.....	6,138,500	20,746,490	233,480	3,669,300	58,550	740,080	4,409,380	132,281 40	18,469,085	492,000	.....	298,850	11,111,770	4,409,380
Alberta.....	1,599,833	888,205	10,723	5,443,685	310,500	12,948,000	389,333 00	389,333 00	533,080	.....	.....	3,490,925	250,826	43,259,705
B. Columbia.....	.....	.....	.....	9,808,880	.....	14,174,170	9,899,339	296,980 17	.....	.....	.....	.....	.....	14,174,170
Totals.....	Bondex 32,746,878	247,471 204,720,925	825,962	109,356,525	3,631,800	374,689,578	149,743,815	4,493,714 41	109,356,525	2,135,850	3,200,875	48,627,762	61,594,751	374,689,578

Total duty collected ex-manufactory and ex-warehouse.....

1929
\$ 4,755,294 70
1,850 00

1930

\$ 4,493,801 29
1,850 00

\$ 4,756,944 70
\$ 4,495,651 29

MALT LIQUOR

No. 12—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended
March 31, 1929 and 1930

Provinces	Licences		Malt Used	Other Commo- dities Used	Malt Liquor Manufactured	Malt Liquor Exported	Total Duty Collected ex-Manu- factory including Licence Fees
	No.	Fees					
1929		\$	Lbs.	Lbs.	Gals.	Gals.	\$ cts.
Ontario.....	39	2,150	41,621,165	941,448	17,893,941		26,960 30
Quebec.....	9	550	69,376,176	198,000	31,483,771	9,232	550 00
New Brunswick.....	2	100	436,269		170,056		100 00
Nova Scotia.....	2	150	727,700		258,961	3,953	150 00
Manitoba.....	8	450	10,109,665	68,840	4,550,392		16,975 65
Saskatchewan.....	8	450	5,655,775	91,600	2,393,991		18,342 45
Alberta.....	6	350	12,693,345	146,400	5,410,195		350 00
British Columbia.....	12	700	8,627,252	173,534	3,676,103	5,267	31,119 40
Totals.....	86	4,900	149,247,347	1,619,822	65,837,410	18,452	94,547 80
1930							
Ontario.....	39	2,150	34,442,771	646,987	14,965,324	4,806	5,245 40
Quebec.....	9	500	69,616,521	218,800	31,726,511	8,123	500 00
New Brunswick.....	2	100	741,737		276,477	70	100 00
Nova Scotia.....	2	100	916,000		333,829	6,756	100 00
Manitoba.....	8	900	10,505,240	87,520	4,729,881		19,543 05
Saskatchewan.....	9	750	4,289,649	238,300	2,009,169		53,984 70
Alberta.....	5	300	12,560,490	299,950	5,194,837		3,019 05
British Columbia.....	12	750	9,810,336	20,208	4,214,488	5,274	4,356 75
Totals.....	86	5,550	142,882,744	1,511,765	63,450,516	25,029	86,848 95

	1929	1930
Exported.....	gals.	gals.
Ship Stores.....	14,573	20,593
	3,879	4,436
	<u>18,452</u>	<u>25,029</u>

MALT LIQUOR

No. 13—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ending March 31, 1929 and 1930

Provinces	Balance in Ware- house	Ware- housed	Totals	Written off	Export	S. stores	Entered for Consumption		Remain- ing in Ware- house	Totals
							Quantity	Duty Paid		
1929	Gals.	Gals.	Gals.	No.	Gals.	Gals.	Gals.	\$ cts.	Gals.	Gals.
Ontario.....	8,244	1,177,157	1,185,401	8,244	.....	.....	1,091,417	163,712 55	85,740	1,185,401
Quebec.....	13,881	414,066	427,947	.....	3,661	.....	403,250	60,487 50	21,036	427,947
Alberta.....	.....	210,849	210,849	.....	.....	.....	210,849	31,627 35	.....	210,849
British Columbia..	12,097	10,372	22,469	.....	5,267	.....	7,099	1,064 85	10,103	22,469
Totals.....	31,222	1,812,444	1,846,666	8,244	8,928	.....	1,712,615	256,892 25	116,879	1,846,666
1930										
Ontario.....	85,740	1,098,007	1,183,747	11,342	4,410	.....	976,821	146,523 20	191,174	1,183,747
Quebec.....	21,035	375,200	396,235	.....	259	27	364,725	54,708 75	31,224	396,235
Alberta.....	.....	390,398	390,398	.....	.....	.....	390,398	58,559 70	.....	390,398
British Columbia..	10,103	1,020	11,123	.....	3,312	72	6,719	1,007 85	1,020	11,123
Totals.....	116,878	1,864,625	1,981,503	11,342	7,981	99	1,738,663	260,799 50	223,418	1,981,503

Total duty accrued ex-manufactory and ex-warehouse.....	1929	1930
	\$ 346,540 05	\$ 342,098 45
Licence fees.....	4,900 00	5,550 00
	<u>\$ 351,440 05</u>	<u>\$ 347,648 45</u>

TOBACCO

No. 14—COMPARATIVE STATEMENT of Manufactures

Provinces	Licences		Total Weight of Raw Leaf Tobacco and other materials actually used	Tobacco		
	No.	Fees		Produced	Paid Duty	Ware-housed
1929		\$ cts.	Lbs.	Lbs.	Lbs.	Lbs.
Ontario.....	8	400 00	2,098,260	839,284	759,844	79,440
Quebec.....	43	2,125 00	29,599,482	20,009,169	18,886,292	1,122,877
Prince Edward Island.....	2	100 00	167,225	180,498	180,498	.....
Manitoba.....	2	100 00	9,013	8,262	8,262	.....
British Columbia.....	2	100 00	17,977	18,577	18,577	.....
Totals.....	57	2,825 00	31,891,957	21,055,790	19,853,473	1,202,317
1930						
Ontario.....	8	425 00	2,260,413	736,423	721,412	15,011
Quebec.....	41	2,100 00	30,328,918	20,264,626	19,598,056	666,570
Prince Edward Island.....	2	100 00	160,193	174,136	174,136	.....
Manitoba.....	1	100 00	6,368	5,790	5,790	.....
Alberta.....	1	25 00	541	550	550	.....
British Columbia.....	3	125 00	29,029	30,990	30,990	.....
Totals.....	56	2,875 00	32,785,462	21,212,515	20,530,934	681,581

TOBACCO

for the Years ending March 31, 1929 and 1930

Cigarettes			Cigarettes, Overweight			Snuff		Total Duty Collected ex-Manu- factory (including Licence Fees)
Produced	Paid Duty	Ware- housed	Pro- duced	Paid Duty	Ware- housed	Pro- duced	Paid Duty	
No.	No.	No.	No.	No.	No.	Lbs.	Lbs.	\$ cts.
535,638,660	535,070,410	568,250	49,850	49,850	.....	151	151	3,363,369 71
4,127,620,315	3,321,062,425	806,557,890	1,383,810	1,305,310	78,500	993,318	993,318	23,918,780 03
.....	.....	.....	.....	.....	.....	.....	.....	36,199 60
.....	.....	.....	.....	.....	.....	490	490	1,850 40
.....	.....	.....	.....	.....	.....	.....	.....	3,815 40
4,663,258,975	3,856,132,835	807,126,140	1,433,660	1,355,160	78,500	993,959	993,959	27,324,015 14
.....
.....
649,012,290	648,467,290	545,000	11,000	11,000	.....	.....	.....	4,035,632 07
4,423,011,110	2,179,556,555	2,243,454,555	1,468,120	1,401,020	67,100	1,028,176	1,028,176	17,220,096 99
.....	.....	.....	.....	.....	.....	.....	.....	34,927 20
.....	.....	.....	.....	.....	.....	525	525	1,363 00
.....	.....	.....	.....	.....	.....	.....	.....	135 00
.....	.....	.....	.....	.....	.....	.....	.....	6,323 00
5,072,023,400	2,828,023,845	2,243,999,555	1,479,120	1,412,020	67,100	1,028,701	1,028,701	21,298,477 26

TOBACCO—MANUFACTURED BEFORE JUNE 1, 1908

No. 15—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years
 Dr. ended March 31, 1929 and 1930 Cr.

Remaining in warehouse from last year	Totals	Provinces	Remaining in warehouse	Totals
Lbs.	Lbs.	1929	Lbs.	Lbs.
461	461	New Brunswick.....	461	461
19,719½	19,719½	Sundries.....	19,719½	19,719½
20,180½	20,180½	Totals.....	20,180½	20,180½
Lbs.	Lbs.	1930	Lbs.	Lbs.
461	461	New Brunswick.....	461	461
19,719½	19,719½	Sundries.....	19,719½	19,719½
20,180½	20,180½	Totals.....	20,180½	20,180½

TOBACCO

DR. No. 16—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1930 DR.

Ports	Remaining in Warehouse from last year		Warehoused			Received from other Ports			Totals			
	Tobacco		Cigarettes	Tobacco	Cigarettes	Tobacco		Cigarettes	Tobacco	Cigarettes	Over-weight cigar-ettes	
	Lbs.	No.	Lbs.	No.	Removed during year	Removed year	In transit last year					
Hamilton, Ont.	1,640½		15,011		545,000			1,000		16,651½	546,000	
Ottawa, Ont.							50	258,600		50	258,600	
Ontario	1,640½		15,011		545,000		50	259,600		16,701½	804,600	
Granby, Que.												
Montreal, Que.	20,970		8,031			151				8,182		
Quebec, Que.	11,240		646,526		2,242,422,955	400		374,000	50,000	667,896	2,360,060,395	67,100
			12,013		1,031,600			17,000		23,253	1,902,200	
Quebec	32,210		666,570		2,243,454,555	551		391,000	50,000	699,331	2,361,962,595	67,100
St. John, N.B.												
		5,000						1,195,000	120,000		1,320,000	
Halifax, N.S.	90	395,000						3,206,000	65,000	90	3,666,000	
New Westminster, B.C.												
Vancouver, B.C.	632	1,343,540				2,260		387,000			387,000	
Victoria, B.C.								5,338,580	200,000	2,892	6,882,120	
								519,000			519,000	
British Columbia	632	1,343,540				2,260		6,244,580	200,000	2,892	7,788,120	
Totals	34,572½	119,810,580	681,581	2,243,999,555		2,861½	11,296,180	435,000		719,014½	2,375,541,315	67,100

TOBACCO

No. 16—WAREHOUSE RETURNS for the Fiscal Year ended March 31, 1930—Continued

Cr.

Cr.

Ports	Entered for Consumption			Removed to other Ports				Exported	
	Tobacco	Cigarettes	Duty	Tobacco		Cigarettes		Tobacco	Cigarettes
				Ware- housed in Ports to which removed	In transit	Ware- housed in Ports to which removed	In transit		
	Lbs.	No.	\$ cts.	Lbs.	Lbs.	No.	No.	Lbs.	No.
Hamilton, Ont.		1,000	6 00	2,160	576	467,500		5,470	64,000
Ottawa, Ont.									
Ontario		1,000	6 00	2,160	576	467,500		5,470	64,000
Granby, Que.									
Montreal, Que.	620,275	2,206,221,190	13,361,412 14	500				7,496	
Quebec, Que.	15,545	220,600	4,432 60	111		9,943,680	500,000	17,886	609,000
Quebec								2,719	
	635,820	2,206,441,790	13,365,844 74	611		9,943,680	500,000	28,101	609,000
St. John, N.B.									
						15,000			
Halifax, N.S.									
						25,000			
New Westminster, B.C.									
Vancouver, B.C.						25,000			
Victoria, B.C.				90		706,000			
						114,000			
British Columbia				90		845,000			
Totals	635,820	2,206,442,790	13,365,850 74	2,861	576	11,296,180	500,000	33,571	673,000

TOBACCO

CR.

No. 16—WAREHOUSE RETURNS for the Fiscal Year ended March 31, 1930—Concluded

CR.

Ports	Ship's Stores		Written off		Taken for Re-working		Remaining in Warehouse			Totals		
	Cigarettes		Cigarettes		Cigarettes		Cigarettes			Cigarettes		
	Tobacco	Cigarettes	Tobacco	Cigarettes	Tobacco	Cigarettes	Tobacco	Cigarettes	Over-weight cigarettes	Tobacco	Cigarettes	Over-weight cigarettes
Hamilton, Ont.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	No.	Lbs.	No.	No.
Ottawa, Ont.		13,500	50	258,600	1,640½		6,805			16,651½	546,000	
Ontario		13,500	50	258,600	1,640½		6,805			50	258,600	
Granby, Que.	35									16,701½	804,600	
Montreal, Que.	792	9,340,180		3,150	151		23,592	133,441,945	67,100	8,182	2,360,060,395	67,100
Quebec, Que.				466,100	5,240	1,250	4,989	1,215,500		667,896	1,902,200	
Quebec	827	9,340,180		469,250	5,391	1,250	28,581	134,657,445	67,100	23,253	2,361,962,595	67,100
St. John, N.B.		1,210,000						95,000			1,320,000	
Halifax, N.S.	30	3,476,000					60	165,000		90	3,666,000	
New Westminster, B.C.		260,000						102,000			387,000	
Vancouver, B.C.	10	5,248,350			2,664		128	927,740			6,882,120	
Victoria, B.C.		405,000									519,000	
British Columbia	10	5,913,380			2,664		128	1,029,740		2,892	7,788,120	
Totals	867	19,953,060	50	727,850	9,695½	1,250	35,574	135,947,485	67,100	719,011½	2,375,541,315	67,100

TOBACCO

Dr.

No. 17—COMPARATIVE STATEMENT of Warehouse Returns for

Provinces	Remaining in Warehouse from last year		Warehoused		
	Tobacco	Cigarettes	Tobacco	Cigarettes	Over-weight Cigarettes
1929	Lbs.	No.	Lbs.	No.	No.
Ontario.....	6,681	.....	79,440½	568,250	.....
Quebec.....	59,745	76,677,750	1,122,876½	806,557,890	78,500
New Brunswick.....	25	57,500	.....	.....	.....
Nova Scotia.....	.....	134,000	.....	.....	.....
British Columbia.....	162	585,950	.....	.....	.....
Totals.....	66,613	77,455,200	1,202,317	807,126,140	78,500
1930					
Ontario.....	1,640½	.....	15,011	545,000	.....
Quebec.....	32,210	118,067,040	666,570	2,243,454,555	67,100
New Brunswick.....	.....	5,000	.....	.....	.....
Nova Scotia.....	90	395,000	.....	.....	.....
British Columbia.....	632	1,343,540	.....	.....	.....
Totals.....	34,572½	119,810,580	681,581	2,243,999,555	67,100

TOBACCO

the Fiscal Years ended March 31, 1929 and 1930

Received from other Ports					Totals		
Tobacco		Cigarettes		Over-weight cigarettes	Tobacco	Cigarettes	Over-weight Cigarettes
Removed during year	In transit last year	Removed during year	In transit last year	Removed during year			
Lbs.	Lbs.	No.	No.	No.	Lbs.	No.	No.
49	9	196,450		400	86,179½	764,700	400
515		511,150	48,000		1,183,136½	883,794,790	78,500
		510,000			25	567,500	
150		2,120,000	150,000		150	2,404,000	
4,136		4,837,000	250,000		4,298	5,672,950	
4,850	9	8,174,600	448,000	400	1,273,789	893,203,940	78,900
50		259,600			16,701½	804,600	
551		391,000	50,000		699,331	2,361,962,535	67,100
		1,195,000	120,000			1,320,000	
		3,206,000	65,000		90	3,666,000	
2,260		6,244,580	200,000		2,892	7,788,120	
2,861		11,296,180	435,000		719,014½	2,375,541,315	67,100

TOBACCO

DR. No. 17—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1929 and 1930 C.R.
—Continued

Provinces	Entered for Consumption				Removed to Other Ports					Exported	
	Tobacco	Cigar-ettes	Over-weight cigar-ettes	Duty	Tobacco		Cigarettes		Over-weight cigar-ettes	Tobacco	Cigar-ettes
					Ware-housed in ports to which removed	In transit	Ware-housed in ports to which removed	In transit				Ware-housed in ports to which removed
1929	Lbs.	No.	No.	\$ cts.	Lbs.	Lbs.	No.	No.	No.	Lbs.	No.
Ontario.....	6,924½	4,200	.....	1,410 10	4,136	.....	.....	477,000	50,000	72,910	9,800
Quebec.....	1,118,805	749,930,130	78,100	4,724,200 88	599	25	.....	7,498,450	385,000	23,627½	837,620
New Brunswick.....	.....	.....	.....	.....	.....	.....	.....	40,000	.....	.....	.....
Nova Scotia.....	.....	.....	.....	.....	90	.....	.....	159,150	.....	.....	.....
British Columbia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	1,125,729½	749,934,330	78,100	4,725,610 98	4,850	.....	.....	8,174,600	435,000	96,537½	847,420
1930	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ontario.....	.....	1,000	.....	6 00	2,160	576	.....	467,500	.....	5,470	64,000
Quebec.....	635,820	2,206,441,790	.....	13,365,844 74	611	.....	.....	9,943,680	500,000	28,101	609,000
New Brunswick.....	.....	.....	.....	.....	.....	.....	.....	15,000	.....	.....	.....
Nova Scotia.....	.....	.....	.....	.....	.....	.....	.....	25,000	.....	.....	.....
British Columbia.....	.....	.....	.....	.....	90	.....	.....	845,000	.....	.....	.....
Totals.....	635,820	2,206,442,790	.....	13,365,850 74	2,861	576	.....	11,296,180	500,000	33,571	675,000

TOBACCO

DR. No. 17—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1929 and 1930 CR.
—Concluded

Provinces	Ship's Stores		Written off			Taken for Reworking		Remaining in Warehouse			Totals		
	Tobacco	Cigar-ettes	Over-weight cigar-ettes	Tobacco	Cigar-ettes	Tobacco	Cigar-ettes	Tobacco	Cigar-ettes	Over-weight Cigar-ettes	Tobacco	Cigar-ettes	Over-weight Cigar-ettes
	Lbs.	No.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	No.	Lbs.	No.	No.
1929													
Ontario.....	18	27,250	400	58	196,450	492½	6,150	1,640½	118,067,040	.....	88,170½	764,700	400
Quebec.....	900	7,070,400	.....	.....	.....	6,995	6,150	32,210	5,000	.....	1,183,130½	883,794,790	78,500
New Brunswick.....	60	562,500	.....	.....	.....	.....	.....	90	395,000	.....	25	567,500	.....
Nova Scotia.....	.....	1,969,000	.....	.....	.....	3,576	.....	632	1,343,540	.....	150	2,404,000	.....
British Columbia.....	.....	4,170,260	.....	.....	.....	.....	.....	.....	.....	.....	4,298	5,672,950	.....
Totals.....	978	13,799,410	400	58	196,450	11,063½	6,150	34,572½	119,810,580	.....	1,273,789	893,203,940	78,900
1930													
Ontario.....	.....	13,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	804,600	.....
Quebec.....	827	9,340,180	.....	50	258,600	1,640½	1,250	6,805	134,657,445	.....	699,331	2,361,962,595	67,100
New Brunswick.....	.....	1,210,000	.....	.....	469,250	5,391	.....	28,581	95,000	.....	.....	1,320,000	.....
Nova Scotia.....	30	3,476,000	.....	.....	.....	.....	.....	60	165,000	.....	90	3,666,000	.....
British Columbia.....	10	5,913,380	.....	.....	.....	2,664	.....	128	1,029,740	.....	2,892	7,788,120	.....
Totals.....	867	19,953,060	.....	50	727,850	9,695½	1,250	35,574	135,947,185	67,100	719,014½	2,375,541,315	67,100

RAW LEAF TOBACCO, INCLUDING

DR.

No. 18—COMPARATIVE STATEMENT of Warehouse

Remaining in warehouse from last year	Imported	Warehoused ex factory	Received from other Ports		Totals	Provinces
			Removed during year	In transit last year		
std. lbs.	std. lbs.	std. lbs.	std. lbs.	std. lbs.	std. lbs.	1929
2,488,507	1,823,720	927	1,476	277	4,314,908	Ontario.....
9,936,878	15,740,746		525,011	2	26,202,636	Quebec.....
419	262				681	New Brunswick.....
1,165	1,196				2,361	Nova Scotia.....
5,477					5,477	Prince Edward Island.....
10,661	5,098				15,759	Manitoba.....
273	514				787	Alberta.....
4,937	22,103		111		27,151	British Columbia.....
12,448,317	17,593,639	927	526,598	279	30,569,760	Totals.....
						1930
2,155,261	1,280,767	135,366	16,835		3,588,229	Ontario.....
9,760,408	15,152,063		417,389		25,329,860	Quebec.....
112	786				898	New Brunswick.....
1,101	939		300		2,340	Nova Scotia.....
8,070	2,452				10,522	Manitoba.....
193	1,008				1,201	Alberta.....
4,451	16,666		790		21,907	British Columbia.....
11,929,596	16,454,681	135,366	435,314		28,954,957	Totals.....

STEMS, SCRAPS AND CUTTINGS

Returns for the Fiscal Years ended March 31, 1929 and 1930

C.R.

Entered for Consumption		Removed to other Ports		Exported	Ship stores	Des-troyed	Remaining in warehouse	Totals
Quantity	Duty	Ware-housed in Ports to which removed	In Transit					
std. lbs.	\$ cts.	std. lbs.	std. lbs.	std. lbs.	std. lbs.	std. lbs.	std. lbs.	std. lbs.
2,008,759	853,756 90	2,629	.....	147,096	.....	1,163	2,155,261	4,314,908
15,792,753	6,388,344 20	523,969	.....	115,272	.....	10,235	9,760,408	26,202,636
569	248 80	.....	.....	.....	.....	.....	112	681
1,260	504 00	.....	.....	.....	.....	.....	1,101	2,361
601	240 40	.....	.....	.....	.....	.....	.....	5,477
7,689	2,977 30	.....	.....	.....	.....	4,876	.....	15,759
594	238 80	.....	.....	.....	.....	.....	8,070	787
22,700	11,204 60	.....	.....	.....	.....	.....	193	27,151
		.....	.....	.....	.....	.....	4,451	.....
17,834,925	7,257,515 00	526,598	.....	262,368	.....	16,274	11,929,596	30,569,760
2,036,683	864,539 20	1,574	1,221	147,379	.....	1,539	1,399,833	3,588,229
15,087,897	6,131,086 90	433,650	.....	575	.....	10,101	9,797,637	25,329,860
445	178 00	.....	.....	.....	.....	30	423	898
805	329 00	.....	.....	.....	300	.....	1,235	2,340
5,319	2,214 00	.....	.....	.....	.....	.....	5,203	10,522
598	245 20	.....	.....	.....	.....	.....	603	1,201
17,633	8,496 80	90	.....	.....	100	7	4,077	21,907
17,149,380	7,007,089 10	435,314	1,221	147,954	400	11,677	11,209,011	28,954,957

CIGARS

No. 19—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended March 31, 1929 and 1930

Provinces	Licences		Total Raw Leaf Tobacco and other materials actually used	Deficiencies Paying Duty	Cigars at \$3.00 per Thousand			Total Duty collected ex-manu- factory, including Licence Fees	
	No.	Fees			Lbs.	No.	No.		No.
1929		\$		No.	No.	No.	No.	\$ cts.	
Ontario.....	31	1,650	859,343½	37,022	41,157,279	39,846,835	1,310,444	121,303 25	
Quebec.....	39	1,950	2,732,650¾	5,839	150,954,460	50,891,582	100,062,878	154,642 48	
New Brunswick.....	1	50	2,167	.....	125,990	114,040	11,950	392 12
Nova Scotia.....	1	50	4,028	.....	235,575	143,750	91,825	481 25
Alberta.....	1	50	2,083½	.....	107,900	107,900	.....	373 70
British Columbia.....	5	450	46,791	42,458	2,015,625	2,015,625	.....	6,624 17
Totals.....	82	4,206	3,647,063¾	85,319	194,596,829	93,119,732	101,477,097	283,816 97	
1930									
Ontario.....	29	1,400	829,437	25,241	40,641,726	39,034,616	1,607,110	118,582 75	
Quebec.....	40	2,000	2,752,904	1,341	153,570,896	50,787,690	102,783,206	154,367 34	
New Brunswick.....	1	50	1,887	.....	108,660	79,810	28,850	289 44
Nova Scotia.....	1	50	3,149	.....	197,625	35,250	162,375	155 75
Alberta.....	1	50	1,986	.....	96,300	96,300	.....	338 90
British Columbia.....	10	525	35,250	126,262	1,674,900	1,672,900	2,000	5,922 60	
Totals.....	82	4,075	3,624,563	152,844	196,290,107	91,706,566	104,583,541	279,656 78	

CIGARS

No. 20—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1929 and 1930

Remain- ing in Ware- house from last year	Ware- housed	Received from other Ports		Provinces	Entered for Consumption		Removed to other Ports		Ex- ported	Free	Remain- ing in Ware- house	Totals
		Removed during the year	In Transit last year		Quantity	Duty	Warehoused in Ports to which removed	In Transit				
No.	No.	No.	No.	1929	No.	\$	No.	No.	No.	No.	No.	No.
868,775	1,310,444	3,500	.....	Ontario.....	1,451,225	4,353 68	.....	.....	1,000	3,500	726,994	2,182,719
13,002,645	100,062,878	6,906,850	220,250	Quebec.....	96,243,140	288,467 01	6,917,800	337,100	119,600	.....	16,574,983	120,192,623
2,650	11,950	.....	.....	New Brunswick.....	8,450	25 35	.....	.....	.....	.....	6,150	14,600
20,475	91,825	.....	.....	Nova Scotia.....	73,300	219 91	.....	.....	.....	.....	39,000	112,300
5,350	.....	8,000	1,000	British Columbia.....	.....	.....	550	.....	5,150	.....	8,650	14,350
13,899,895	101,477,097	6,918,350	221,250	Totals.....	97,776,115	293,065 95	6,918,550	337,100	125,750	3,500	17,555,777	122,516,592
726,994	1,607,110	4,250	.....	1930	.....	.....	.....	.....	.....	.....	.....	.....
16,574,983	102,783,206	6,190,500	337,100	Ontario.....	694,794	2,084 38	.....	.....	400	48,250	1,594,910	2,338,354
6,150	28,850	.....	.....	Quebec.....	103,530,428	310,809 00	6,198,250	119,700	115,396	.....	15,922,015	125,885,789
39,000	162,375	2,000	.....	New Brunswick.....	28,256	84 75	.....	.....	.....	.....	6,750	35,000
8,650	2,000	2,500	.....	Nova Scotia.....	139,075	417 23	.....	.....	2,000	.....	62,300	203,375
				British Columbia.....	.....	.....	1,000	.....	4,950	.....	7,200	13,150
17,355,777	104,553,541	6,199,250	337,100	Totals.....	104,392,547	313,395 36	6,199,250	119,700	122,746	48,250	17,593,175	128,475,668

Total duty accrued ex-manufactory and ex-warehouse.....

1929	1930
\$ 572,682 92	\$ 588,977 14
4,200 00	4,075 00
\$ 576,882 92	\$ 593,052 14

INSPECTION OF PETROLEUM

No. 21—COMPARATIVE STATEMENT of Inspected Petroleum and Naphtha shipped from Refineries during the Fiscal Years ended March 31, 1929 and 1930

Provinces	Licences		Petroleum	Naphtha	Totals
	No.	Fees			
1929		\$	Galls.	Galls.	Galls.
Ontario.....	5	5	30,830,414.65	129,782,275.80	160,612,690.45
Quebec.....	2	2	6,519,733.00	91,561,910.00	98,081,643.00
Nova Scotia.....	1	1	14,189,818.00	57,891,905.00	72,081,723.00
Manitoba.....	1	1	338,002.00	760,876.00	1,098,878.00
Saskatchewan.....	1	1	8,593,777.00	42,203,323.00	50,797,100.00
Alberta.....	8	8	7,586,730.00	55,968,556.00	63,555,286.00
British Columbia.....	3	3	6,693,893.00	45,585,961.50	52,279,854.50
Totals.....	21	21	74,752,367.65	423,754,807.30	498,507,174.95
1930					
Ontario.....	5	5	39,150,529.29	144,155,950.00	183,306,479.29
Quebec.....	2	2	3,413,456.00	108,947,225.00	112,360,681.00
Nova Scotia.....	1	1	8,706,051.00	60,087,980.00	68,794,031.00
Manitoba.....	1	1	91,248.00	272,793.00	364,041.00
Saskatchewan.....	1	1	8,119,724.00	47,443,527.00	55,563,251.00
Alberta.....	9	11	6,905,805.00	57,235,154.00	64,140,959.00
British Columbia.....	3	3	6,726,121.50	51,763,882.00	58,490,003.50
Totals.....	22	24	73,112,934.79	469,906,511.00	543,019,445.79

No. 22—STATEMENT showing the number of parties under Licences for the year 1929-30

Ports	Distillers	Manufacturers in Bond	Bonding Warehouses	Cigar Manufacturers	Tobacco Manufacturers	Brewers and Maltsters	Chemical Stills	Wood Alcohol Mfrs.	Petroleum Refiners	Manufacturers of Stills	Importers of Stills	Malt Vinegar Brewers	Can. leaf stemmers	Acetic Acid	Compounders
Amherstburg.....	1	1			2	1							3		
Belleville.....	2					1									1
Brantford.....		2				1	2								
Bridgeburg.....		1					1								
Chatham.....		1					1						2		
Cobourg.....		2					1								
Cornwall.....		1					2								
Fort Frances.....						1									
Fort William.....		1	1			1									
Galt.....		1				1									
Guelph.....		1				4	1								
Hamilton.....		6	1	2	1	2	5							1	1
Kenora.....						1									
Kingston.....		2				1									
Kitchener.....	1	2		1		2	2				1				
Lindsay.....	1	2						3							
London.....		7		10	1	2	9						1		
Niagara Falls.....	1	1		1											
North Bay.....						1	1								
Orillia.....								1							
Oshawa.....															
Ottawa.....		5	1			2	6				2				
Owen Sound.....				1											
Parry Sound.....								1							
Peterborough.....		1													
Port Arthur.....						1									
Port Hope.....		1					1								
Prescott.....	1	1													
Sarnia.....	1					1	1		2	1					
Sault Ste. Marie.....	1			1		1									
Simcoe.....							1								
Stratford.....		1				1	2								
Sudbury.....															
St. Catharines.....				2		1									
St. Thomas.....		1		2		1									
Toronto.....	1	108	9	8	4	8	33		3	1	8	2	1		1
Welland.....	1					1			3		1				1
Windsor.....	1	16		1		6	7				1				1
Woodstock.....		1									1				
Ontario.....	11	165	12	29	8	41	78	5	5	2	13	2	7	1	4
Chicoutimi.....		4		1											
Drummondville.....							1								
Granby.....			7	3	1										
Hull.....							1	1							
Montreal.....	8	82	12	31	33	6	18	2	2	2	7		1	1	1
Quebec.....		15	1	1	4	2	2								
Shawinigan Falls.....		1			1		1							1	
Sherbrooke.....		4		2			1								
Sorel.....	1														
St. Hyacinthe.....	1			1									1		
St. John's.....		1		1	1		1								
Sutton.....		1													
Three Rivers.....		1			1										
Valleyfield.....		2				1									
Quebec.....	10	111	20	40	41	10	25	3	2	2	7		2	2	1

No. 22—STATEMENT showing the number of parties under Licences for the year
1929-30—*Concluded*

Ports	Distillers	Manufacturers in Bond	Bonding Warehouses	Cigar Manufacturers	Tobacco Manufacturers	Brewers and Maltsters	Chemical Stills	Wood Alcohol Mfrs.	Petroleum Refiners	Manufacturers of Stills	Importers of Stills	Malt Vinegar Brewers	Can. leaf stemmers	Acetic Acid	Compounders
Fredericton.....	1	8	1	1	2	1									
St. John.....	1	2													
St. Stephen.....	1	3													
Woodstock.....															
New Brunswick.....	1	13	1	1	2	1									
Amherst.....							1								
Annapolis.....		1													
Halifax.....		3	2		2	2	2		1		1				
Kentville.....		1		1											
Yarmouth.....															
Nova Scotia.....		5	2	1	2	3		1		2					
Charlottetown, P.E.I.....		1			2										
Brandon.....						2	1								
Winnipeg.....	2	25	6		1	8	6		1		1	1			
Manitoba.....	2	25	6		1	10	7		1		1	1			
Moose Jaw.....						1	2								
North Portal.....						1									
Regina.....		1	2			2	4		1						
Saskatoon.....		1				3	1								
Prince Albert.....						2									
Saskatchewan.....		2	2			9	7		1						
Calgary.....		2	1	1	1	3	4		4		1	1			
Edmonton.....		3	1			2	3		2						
Lethbridge.....						1	2		3						
Alberta.....		5	2	1	1	6	9		9		1	1			
Cranbrook.....						1									
Fernie.....						1									
Nanaimo.....				1											
Nelson.....						2									
New Westminster.....	1			2		1									
Penticton.....						1							1		
Revelstoke.....						1									
Vancouver.....	3	10	2	6	3	5	3		3	1					
Victoria.....		1	1	1		2	2				1				
British Columbia.....	4	11	3	10	3	14	5		3	1	1		1		1
Dawson, Y.T.....			1												
Grand Total.....	28	338	49	82	56	94	135	8	22	5	25	4	10	3	6

EXCISE TAXES

STATEMENT showing Excise Taxes (Domestic and Import)

Ports		Licences	Stamps	Auto- mobiles	Matches	Sales	Playing Cards	Cigars
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
NOVA SCOTIA—								
1	Amherst.....	102 00	3,463 26			22,851 59		
2	Annapolis Royal.....	20 00	1,325 50			3,808 57		
3	Antigonish.....	4 00	1,095 40			179 18		
4	Arsicat.....		278 90				3 18	
5	Baddeck.....	22 00	303 10			216 11		
6	Barrington Passage.....	32 00	289 66			3,399 53		
7	Bridgewater.....	48 00	1,457 02			416 58		
8	Canso.....	8 00	732 32			701 91		
9	Digby.....	12 00	1,036 96			129,169 54		
10	Halifax.....	310 00	32,867 38			6,209 78		
11	Kentville.....	86 00	4,403 55			4,663 67		
12	Liverpool.....	44 00	2,046 76					
13	Lockeport.....		140 52			4,342 19		
14	Lunenburg.....	20 00	1,559 86	257 04		1,764 45		
15	Middleton.....	8 00	1,186 40			176,615 19		
16	New Glasgow.....	72 00	3,833 26			18,430 74		
17	North Sydney.....	16 00	1,906 96			10 35		
18	Parrsboro.....	22 00	689 76			5,604 88		
19	Pictou.....	40 00	1,421 84			59 48		
20	Port Hawkesbury.....	13 00	330 48			1,012 70		
21	Shelburne.....	22 00	262 90			132,710 91		
22	Sydney.....	54 00	8,777 76			43,651 91		
23	Truro.....	80 00	4,446 76			1,286 27		
24	Weymouth.....	36 00	281 56	182 56		9,141 36		
25	Windsor.....	68 00	2,124 96			4,499 45		115 72
26	Yarmouth.....	46 00	3,166 26					
		1,190 00	79,429 15	439 60		570,749 52		115 72
PRINCE EDWARD ISLAND—								
27	Charlottetown.....	222 00	7,470 58			13,429 82		
28	Summerside.....	84 00	3,373 56			2,034 69		
		306 00	10,844 14			15,464 51		
NEW BRUNSWICK—								
29	Bathurst.....	72 00	1,584 90	232 86		5,515 98		
30	Campbellton.....	40 00	4,548 88			12,410 56		
31	Chatham.....	86 00	1,335 54			12,490 00		
32	Fredericton.....	100 00	4,781 56			16,696 03		
33	McAdam Junction.....	8 00	205 52			39 51		
34	Moncton.....	106 00	8,224 49	257 04		54,387 59		
35	Newcastle.....	8 00	1,194 22	101 50		2,730 78		
36	Sackville.....	22 00	1,419 94			20,679 22		
37	St. Andrews.....	24 00	448 84			118 09		
38	St. John.....	588 00	27,233 30			199,064 43		118 06
39	St. Stephen.....	24 00	1,488 02			23,175 41		
40	Woodstock.....	152 00	7,248 80			10,256 90		
		1,230 00	59,714 01	591 40		357,564 50		118 06
QUEBEC—								
41	Athelstan.....	16 00	1,843 24			1,031 85		
42	Chicoutimi.....	174 00	13,121 54	42 50		38,286 37		
43	Coaticook.....	56 00	1,976 89			5,424 71		
44	Drummondville.....	76 00	2,293 60			23,951 79		
45	Gaspé.....	8 00	733 20			733 28		
46	Granby.....	172 00	3,103 40			49,076 83		1,040 04
47	Hull.....	322 00	9,476 92			81,941 23		
48	Lake Megantic.....	177 00	1,314 56			5,708 70		
49	Montreal.....	8,625 50	1,404,498 34	13,846 11	592,110 23	10,054,571 93	131,184 00	172,156 25
50	Paspebiac.....	40 00	1,907 49			637 34		
51	Port Burwell.....							
52	Quebec.....	1,467 00	75,360 82	1,579 56		519,607 48		1,985 28
53	Rimouski.....	120 00	5,639 62			7,301 87		
54	Rock Island.....	106 00	2,970 34			38,159 23		
55	Shawinigan Falls.....	110 00	5,863 41			28,589 72		
56	Sherbrooke.....	999 00	29,475 64	104 00		251,486 46		143 01
57	Sorel.....	122 00	4,077 44			17,214 63		
58	Sutton.....	50 00	1,764 98			3,324 45		
59	St. Armand.....		12 54					
60	St. Hyacinthe.....	212 00	6,371 61			59,819 86		
61	St. Johns.....	318 00	8,609 10		133,795 80	100,961 57		
62	Three Rivers.....	226 00	14,421 81			57,727 96		2 70
63	Valleyfield.....	32 00	3,940 88			34,640 53		
		13,428 50	1,598,777 37	15,572 17	725,906 03	11,380,197 79	131,184 00	175,327 28

tations) collected during the fiscal year 1929-30

Wines	Ale, Beer, etc.	Transportation	Embossed cheques	Penalties and Interest	Domestic Total	Importations		Grand Total	
						Sales	Excise		
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
				152 74	26,569 59	4,341 95	499 54	31,411 08	1
		0 15		3 04	5,157 26	588 69	692 70	6,438 65	2
				0 89	1,279 47	714 30	1,154 64	3,148 41	3
					278 90	1,278 74	54 36	1,612 00	4
					328 28	430 18	6 00	764 46	5
					537 77	174 94	178 50	891 21	6
				27 64	4,932 19	1,161 95	1,068 27	7,162 41	7
					1,156 90	1,070 25	70 88	2,298 03	8
					1,750 87	1,232 79	739 83	3,723 49	9
34,712 85	537 59		19 14	508 11	198,124 61	119,567 30	26,343 66	344,035 57	10
	973 20				11,672 53	2,021 56	925 96	14,620 05	11
				0 21	6,754 64	8,602 76	1,946 12	17,303 52	12
					140 52	255 63	27 54	423 69	13
	0 30			12 38	6,191 47	2,717 31	1,857 00	10,765 78	14
					2,959 21	264 40	298 83	3,522 44	15
	74 25			3 18	180,523 63	6,111 45	3,448 10	190,083 18	16
					20,427 95	2,323 69	434 43	23,186 07	17
					722 11	190 11	27 00	939 22	18
				14 45	7,081 17	709 82	24 00	7,814 99	19
					4,07 96	1,361 79	81 71	1,851 46	20
				3 02	1,300 62	294 07	1 80	1,596 49	21
	26 90		24 74		141,594 31	22,048 60	5,855 22	169,498 13	22
					48,178 67	4,862 81	2,028 03	55,069 51	23
	0 45			0 18	1,787 02	558 45	41 76	2,387 23	24
				23 95	11,358 27	2,213 41	457 69	14,029 37	25
	70 35			1 19	7,898 97	6,768 67	3,931 62	18,599 26	26
34,712 85	1,683 19		43 88	750 98	689,114 89	191,865 62	52,195 19	933,175 70	
				333 32	21,455 72	10,181 00	2,542 13	34,178 85	27
				2 84	5,495 09	4,730 90	2,327 29	12,553 28	28
				336 16	26,950 81	14,911 90	4,869 42	46,732 13	
				2 65	7,408 39	2,845 90	1,168 34	11,422 63	29
				128 65	17,128 09	21,436 75	1,507 68	40,079 52	30
	52 20			8 86	13,972 60	997 60	53 26	15,023 46	31
				45 88	21,623 47	45,680 91	3,752 86	71,057 24	32
				0 02	253 03	1,294 85	191 02	1,738 90	33
				108 41	63,083 55	40,623 10	4,871 31	108,577 96	34
				3 44	4,037 94	769 22	316 18	5,123 34	35
	18 00				22,121 16	694 22	203 78	23,019 16	36
	26,201 72				608 93	934 72	123 65	1,667 30	37
	32 85			930 82	254,169 18	111,876 20	12,180 51	378,225 89	38
					24,687 43	6,509 53	2,829 58	34,026 54	39
				221 11	17,878 81	7,212 96	3,167 32	28,259 09	40
26,201 72	103 05		0 02	1,449 82	446,972 58	240,875 96	30,365 49	718,214 03	
				5 93	2,897 02	7,367 54	7,323 52	17,588 08	41
	41 80			2,577 10	54,243 31	11,236 31	2,070 07	67,549 69	42
				7 04	7,464 64	1,384 97	430 04	9,279 65	43
				32 41	26,353 80	21,440 62	575 95	48,370 37	44
					1,474 48	282 22	3 19	1,759 89	45
				215 05	53,607 32	4,172 25	739 11	58,518 68	46
				11 34	1,433 03	11,842 02	501 43	105,527 97	47
				106 24	7,306 50	646 84	479 67	8,433 01	48
3,404,571 03	563,946 60		1,373 47	43,916 82	16,390,800 28	2,061,621 06	243,335 13	18,695,756 47	49
	181 85			4 42	2,771 10	920 46		3,691 56	50
						108 23		108 23	51
	366,874 80		31 80	9,719 04	980,105 69	154,981 21	26,617 42	1,161,704 32	52
				72 42	13,463 61	1,823 24	764 57	16,051 42	53
				42 86	41,278 43	6,485 57	1,555 16	49,319 16	54
				105 27	34,669 40	17,224 72	198 90	52,093 02	55
	1,794 93			879 10	288,843 69	55,455 65	7,084 46	351,383 80	56
		3,961 55		25 84	21,439 91	3,331 99	170 27	24,942 17	57
				0 27	5,139 70	2,423 22	856 69	8,419 61	58
					12 54	2,046 32	582 85	2,641 71	59
				243 53	66,647 00	22,418 64	1,112 95	90,178 59	60
	3,120 88			401 47	244,087 22	37,669 45	15,406 03	297,162 70	61
	8,203 69			294 37	75,793 72	18,894 29	2,439 01	97,127 02	62
				628 87	47,445 97	23,653 44	19 21	71,118 62	63
3,784,565 33	571,941 41		1,417 89	60,712 08	18,459,029 85	2,467,430 26	312,265 63	21,238,725 74	

STATEMENT showing Excise Taxes (Domestic and Import)

	Ports	Licences	Stamps	Auto- mobiles	Matches	Sales	Playing Cards	Cigars
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—								
1	Amherstburg.....	84 00	6,774 22			42,171 56		
2	Belleville.....	396 00	9,799 58			171,091 55		
3	Bowmanville.....	26 00	1,376 21			109,608 44		
4	Brantford.....	214 00	14,582 16			224,949 33		
5	Bridgeburg.....	142 00	3,363 46			60,685 48		
6	Brockville.....	52 00	4,810 58			30,712 44		
7	Chatham.....	216 00	17,006 60	50 00		52,642 62		
8	Cobourg.....	76 00	3,134 58			16,204 46		
9	Collingwood.....	166 00	4,698 94			16,477 63		
10	Cornwall.....	74 00	6,444 60			37,643 13		
11	Deseronto.....	8 00	69 10					
12	Fort Frances.....	46 00	3,037 44			11,369 46		
13	Fort William.....	140 00	7,305 65			19,626 98		
14	Galt.....	278 00	8,715 12			263,012 47		
15	Gananoque.....	36 00	1,971 90			3,905 37		
16	Goderich.....	190 00	9,245 40			66,374 76		
17	Guelph.....	466 00	17,879 46	4,034 72		316,107 39		
18	Hamilton.....	2,014 00	68,391 62	2,244 50		2,158,555 74		38,905 90
19	Ingersoll.....	30 00	3,158 28			13,543 31		
20	Kenora.....	100 00	2,984 72			14,657 78		
21	Kingston.....	118 00	8,560 70	472 92		68,937 19		
22	Kitchener.....	748 00	21,370 22	128 50		599,565 20		56 87
23	Lindsay.....	123 50	6,108 33			25,347 18		
24	London.....	638 00	41,353 85	325 79		501,106 65		16,009 56
25	Midland.....	86 00	2,575 90			20,246 57		
26	Morrisburg.....	22 00	2,104 05			3,354 86		
27	Napanee.....	18 00	2,669 50			13,939 20		
28	Niagara Falls.....	174 00	9,906 37			151,859 95		84 30
29	North Bay.....	264 00	27,311 08			48,337 37		
30	Orillia.....	210 00	7,483 03			50,518 47		
31	Oshawa.....	170 00	9,333 19	240,045 03		822,686 71		
32	Ottawa.....	1,682 00	118,447 52	686 17	1,068,650 17	623,628 44		
33	Owen Sound.....	184 00	7,882 50	113 00		75,763 64		377 95
34	Paris.....	28 00	2,415 53			113,449 83		
35	Parry Sound.....	160 00	1,414 10			4,742 65		
36	Peterboro.....	132 00	10,583 07			300,981 45		
37	Pictou.....	84 00	2,518 64			8,404 48		
38	Port Arthur.....	76 00	7,313 70			24,615 63		
39	Port Hope.....	70 00	2,568 87			12,358 95		
40	Port McNicoll.....	2 00	181 92			1 62		
41	Prescott.....	58 00	2,501 92			60,994 31		
42	Sarnia.....	146 00	11,358 91			1,333,236 41		
43	Sault Ste. Marie.....	166 00	9,527 40			234,138 77		10 50
44	Simcoe.....	66 00	5,606 76			23,325 91		
45	Stratford.....	214 00	11,914 90	83 10		163,452 26		
46	Sudbury.....	54 00	12,200 60			94,807 62		
47	St. Catharines.....	514 00	12,861 43			206,083 09		82 11
48	St. Thomas.....	100 00	11,052 82			50,087 22		171 87
49	Tillsonburg.....	60 00	1,894 82			7,097 14		
50	Toronto.....	7,766 00	2,025,455 24	28,059 60		7,942,619 25		92,729 16
51	Trenton.....	46 00	2,035 12			12,795 95		
52	Wallaceburg.....	24 00	1,549 76			6,772 80		
53	Welland.....	122 00	7,485 54			76,056 20		3 03
54	Whitby.....	42 00	3,167 06			4,206 48		
55	Windsor.....	764 00	43,313 64	441,972 82		1,780,151 39	160,000 00	
56	Woodstock.....	178 00	6,243 41			83,951 34		
		20,063 50	2,655,021 02	718,216 15	1,068,650 17	19,178,962 08	160,000 00	148,431 25
MANITOBA—								
57	Brandon.....	88 00	16,185 56			9,251 82		
58	Emerson.....		267 64					
59	Gretna.....		423 58					
60	Portage la Prairie.....	64 00	15,698 17			17,643 85		
61	Winnipeg.....	1,988 00	165,044 18	766 78		1,107,452 93		
		2,140 00	197,619 13	766 78		1,134,348 60		
SASKATCHEWAN—								
62	Moose Jaw.....	64 00	44,344 23			19,350 43		
63	North Portal.....	28 00	4,464 24			5,417 30		
64	Prince Albert.....	86 00	21,632 27			33,214 08		
65	Regina.....	160 00	65,825 57			211,702 63		
66	Saskatoon.....	140 00	51,352 48			46,224 99		
		478 00	187,618 79			315,909 43		

tations) collected during the fiscal year 1929-30—Continued

Wines	Ale, Beer, etc.	Transportation	Embossed cheques	Penalties and Interest	Domestic Total	Importations		Grand Total	
						Sales	Excise		
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
		282 20		95 61	49,407 59	11,981 59	91 55	61,480 73	1
	8,161 84			1,496 88	190,945 85	12,898 40	4,429 85	208,274 10	2
				27 04	111,037 69	1,480 32	4 78	112,522 79	3
1,010 26	21,198 64	10 90	7 28	46 20	262,018 77	26,498 50	581 41	289,098 68	4
825 20				8 51	65,024 65	39,063 31	46,706 64	150,794 60	5
				6 90	35,581 92	6,255 88	776 51	42,614 31	6
			50 70	454 36	70,420 28	19,532 66	353 85	90,306 79	7
				113 98	19,529 02	6,809 25	136 22	26,474 49	8
				22 34	21,364 91	2,164 53	266 94	23,796 38	9
				4 96	44,166 69	11,046 48	1,333 51	56,546 68	10
					77 10	0 61		77 71	11
	11,512 71			9 50	25,975 11	8,156 68	268 37	34,400 16	12
2,087 58	12,634 58	11 65		357 92	42,164 36	99,598 22	4,591 08	146,353 66	13
	3,089 87	86 20		422 32	275,603 98	14,028 31	312 51	289,944 80	14
		1,217 90		119 39	7,250 56	1,695 16	367 37	9,313 09	15
				81 73	75,891 89	4,483 38	221 42	80,596 69	16
283 31	8,075 89			512 31	347,359 08	16,397 38	1,806 70	365,563 16	17
3,415 13	70,993 45	131 10	131 46	1,268 31	2,346,051 21	224,214 96	3,286 44	2,573,552 61	18
				3 26	16,734 85	3,534 49	222 54	20,491 88	19
	3,575 16	229 30		93 75	21,640 71	4,773 96	418 50	26,833 17	20
	12,545 69	95 68		133 26	90,863 44	13,403 28	1,660 07	105,926 79	21
417 68	90,017 67		2 22	391 75	712,698 11	36,245 77	2,365 36	751,309 24	22
				852 82	32,431 83	3,882 46	158 04	36,472 33	23
4,643 94	494,302 76	28 75	140 90	2,833 58	1,061,383 78	114,732 96	5,210 67	1,181,327 41	24
		79 96		112 48	23,100 91	2,193 28	867 06	26,161 25	25
				3 12	5,484 03	1,468 89	506 70	7,459 62	26
140,740 46		5 00		13 29	16,639 99	3,948 24	135 23	20,723 46	27
	3,373 43	1,514 25		398 45	303,168 53	77,650 04	78,445 69	459,264 28	28
		1 20		330 40	81,130 53	34,037 26	9,729 71	124,897 50	29
		13 25		277 86	58,490 56	5,942 73	1,112 06	65,545 35	30
157,870 25	21,465 93	1 95	72 26	612 75	1,072,860 93	16,888 32	6,360 38	1,096,109 63	31
				4,370 20	1,996,872 94	181,183 31	31,477 89	2,209,534 14	32
				298 07	84,621 11	9,525 34	3,246 85	97,393 30	33
				10 18	115,903 54	3,292 60	4 75	119,200 89	34
				258 04	6,574 79	833 78		7,408 57	35
				359 84	312,056 36	27,628 74	5,954 23	345,639 33	36
	25,048 39			40 63	11,047 75	1,143 04	89 03	12,279 82	37
				382 15	57,435 87	17,290 36	4,177 64	78,903 87	38
				193 39	15,191 21	1,727 75	51 22	16,970 18	39
		2 05			185 54	28 30		213 84	40
					63,556 28	5,191 19	3,357 46	72,104 93	41
	19,791 54	368 12		866 27	1,345,607 59	59,116 31	18,821 47	1,423,545 37	42
				368 14	264,370 47	28,639 92	6,541 23	299,551 62	43
	1,401 53			65 04	29,063 71	11,638 57	4,054 05	44,756 33	44
	34,889 36	20 00		28 55	177,094 34	19,872 94	2,572 08	199,539 36	45
140 16	34,814 90	119 65	1 38	5,035 12	147,146 86	44,555 55	5,835 44	197,537 85	46
79,132 15				2,271 88	335,880 59	38,040 76	930 40	374,851 75	47
				12 22	61,424 13	25,897 93	3,581 25	90,903 31	48
44,335 16	378,862 06	41,342 24	1,069 02	28 13	9,080 09	2,751 65	65 30	11,897 04	49
				13 59	14,890 66	10,800 96	17 14	25,708 76	50
				47 88	8,394 44	2,509 20	132 94	11,036 58	51
201 27	22,574 27			263 33	106,705 64	21,597 91	2,912 22	131,215 77	52
				280 83	7,696 37	284 56	24 00	8,004 93	53
10,842 95	349,725 34	5 00	59 82	6,913 94	2,793,748 90	391,677 02	487,198 24	3,672,624 16	54
				35 13	90,407 88	10,215 35	88 08	100,711 31	55
288,075 25	1,764,459 33	67,032 28	1,535 04	77,810 61	26,148,256 68	4,187,402 59	918,031 37	31,253,690 64	56
	22,058 07			1 45	47,584 90	26,949 41	3,104 33	77,638 64	57
					267 64	11,977 20	4,931 11	17,175 95	58
					423 58	2,368 16	355 85	3,147 59	59
933 06	500,288 49	1,310 85	405 84	90 80	33,622 37	29,982 46	2,281 22	65,886 05	60
				4,223 75	1,782,413 88	723,795 04	106,748 28	2,612,957 20	61
933 06	522,346 56	1,436 40	405 84	4,316 00	1,864,312 37	795,072 27	117,420 79	2,776,805 43	62
	27,645 73			1 02	91,405 41	62,757 10	20,035 33	174,197 84	62
	8,996 41			37 95	18,943 90	8,855 27	2,647 60	30,446 77	63
	48,285 32		4 34	106 52	103,328 53	9,398 27	1,321 10	114,047 90	64
	51,012 41		34 04	492 60	329,227 25	195,734 19	19,828 57	544,790 01	65
	75,319 89		62 24	199 97	173,299 57	94,035 20	15,779 71	283,114 48	66
	211,259 76		100 62	838 06	716,204 66	370,780 03	59,612 31	1,146,597 00	67

STATEMENT showing Excise Taxes (Domestic and Import)

	Ports	Licences	Stamps	Auto- mobiles	Matches	Sales	Playing Cards	Cigars
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ALBERTA—								
1	Calgary.....	656 00	205,309 37	601 75		275,472 63		268 14
2	Edmonton.....	742 00	77,891 86	23 46		216,652 84		
3	Lethbridge.....	130 00	19,186 05			51,496 39		
4	Medicine Hat.....	34 00	4,524 56			22,130 94		
		1,562 00	306,911 84	625 21		565,752 85		268 14
BRITISH COLUMBIA—								
5	Abbotsford.....	52 00	2,639 32			11,527 55		
6	Cranbrook.....	40 00	3,187 60			12,946 45		
7	Fernie.....	56 00	1,358 59			9,155 95		
8	Grand Forks.....	18 00	746 84			1,188 07		
9	Nanaimo.....	126 00	9,317 65			33,621 46		173 80
10	Nelson.....	142 00	8,240 58	490 00		23,617 54		
11	New Westminster.....	354 00	13,001 04			167,821 59		331 80
12	Penticton.....	96 00	7,607 60	105 00		10,599 42		
13	Prince Rupert.....	388 00	8,186 20			33,130 71		
14	Revelstoke.....	198 00	9,926 72			18,459 00		
15	Rossland.....	2 00	526 14			32 26		
16	Vancouver.....	2,088 00	366,505 59	2,512 91		934,679 58		4,335 84
17	Victoria.....	568 00	31,805 17	3,151 70		159,922 05		114 81
		4,128 00	463,049 04	6,259 61		1,416,701 63		4,956 25
YUKON TERRITORY—								
18	Dawson.....	2 00	606 77			343 73		
19	White Horse.....	2 00	252 98			381 34		
		4 00	859 75			725 07		
SUMMARY—								
20	Nova Scotia.....	1,190 00	79,429 15	439 60		570,749 52		115 72
21	Prince Edward Island.....	306 00	10,844 14			15,464 51		
22	New Brunswick.....	1,230 00	59,714 01	591 40		357,564 50		118 06
23	Quebec.....	13,428 50	1,598,777 37	15,572 17	725,906 03	11,380,197 79	131,184 00	175,327 28
24	Ontario.....	20,063 50	2,655,021 02	718,216 15	1,068,650 17	19,178,962 08	160,000 00	148,431 25
25	Manitoba.....	2,140 00	197,619 13	766 78		1,134,348 60		
26	Saskatchewan.....	478 00	187,618 79			315,909 43		
27	Alberta.....	1,562 00	306,911 84	625 21		565,752 85		268 14
28	British Columbia.....	4,128 00	463,049 04	6,259 61		1,416,701 63		4,956 25
29	Yukon Territory.....	4 00	859 75			725 07		
		44,530 00	5,559,844 24	742,470 82	1,794,556 20	34,936,375 98	291,184 00	329,216 70

tations) collected during the fiscal year 1929-30—*Concluded*

Wines	Ale, Beer, etc.	Transpor- tation	Embossed cheques	Penalties and Interest	Domestic Total	Importations		Grand Total	
						Sales	Excise		
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
.....	292,074 45	10 00	18 34	3,689 50	778,100 23	274,652 86	54,992 67	1,107,745 76	1
.....	158,297 09	2,653 04	.....	2,538 16	458,798 45	149,514 57	23,454 24	631,767 26	2
.....	179,344 15	.....	.....	1,411 96	251,568 55	29,726 37	10,234 11	291,579 03	3
.....	.....	.....	.....	46 29	26,735 79	8,546 45	1,494 13	36,776 37	4
.....	629,715 69	2,663 04	18 34	7,685 91	1,515,203 02	462,440 25	90,225 15	2,067,868 42	
.....	
.....	.....	0 50	.....	64 31	14,283 68	4,377 54	415 29	19,076 51	5
.....	17,502 77	5 00	.....	39 26	33,721 08	7,260 60	3,536 55	44,518 23	6
.....	25,543 98	5 00	.....	109 91	36,229 43	2,568 84	266 85	39,065 12	7
.....	.....	.....	.....	41 75	1,994 66	2,099 25	285 46	4,379 37	8
.....	.....	37 35	.....	125 54	43,401 80	4,447 16	1,417 96	49,266 92	9
.....	26,210 54	.....	.....	230 53	58,931 19	23,453 65	3,736 58	86,121 42	10
.....	167 75	78,488 53	68 00	534 36	260,767 07	26,090 35	14,450 26	301,307 68	11
.....	6,396 65	575 20	.....	80 10	25,459 97	5,214 84	1,432 29	32,107 10	12
.....	.....	15 00	66 56	72 72	41,859 19	15,456 37	2,828 31	60,143 87	13
.....	3,988 86	.....	.....	279 48	32,852 06	6,286 88	2,750 91	41,889 85	14
.....	.....	.....	.....	2 06	562 46	759 22	555 35	1,877 03	15
.....	33 83	231,706 52	4,515 80	13,734 95	1,500,454 34	930,920 48	108,516 89	2,599,891 71	16
.....	10,255 91	112,026 03	90 75	43 74	237 03	152,136 95	23,015 42	493,367 56	17
.....	10,457 49	501,863 88	5,312 60	451 62	15,552 00	2,428,332 12	1,181,072 13	3,773,012 37	
.....	
.....	.....	.....	.....	.....	952 50	2,559 14	147 39	3,659 03	18
.....	.....	.....	.....	.....	636 32	7,118 05	323 97	8,078 34	19
.....	.....	.....	.....	.....	1,588 82	9,677 19	471 36	11,737 37	
.....	
.....	34,712 85	1,683 19	43 88	750 98	689,114 89	191,865 62	52,195 19	933,175 70	20
.....	.....	.....	.....	336 16	26,950 81	14,911 90	4,869 42	46,732 13	21
.....	26,201 72	103 05	0 02	1,449 82	446,972 58	240,875 96	30,365 49	718,214 03	22
.....	3,784,565 33	571,941 41	1,417 89	60,712 08	18,459,029 85	2,467,430 26	312,265 63	21,238,725 74	23
288,075 25	1,764,459 33	67,032 28	1,555 04	77,810 61	26,148,256 68	4,187,402 59	918,031 37	31,253,690 64	24
933 06	522,346 56	1,436 40	405 84	4,316 00	1,864,312 37	795,072 27	117,420 79	2,776,805 43	25
.....	211,259 76	.....	100 62	838 06	716,204 66	370,780 03	59,612 31	1,146,597 00	26
.....	629,715 69	2,663 04	18 34	7,685 91	1,515,203 02	462,440 25	90,225 15	2,067,868 42	27
10,457 49	501,863 88	5,312 60	451 62	15,552 00	2,428,732 12	1,181,072 13	163,208 12	3,773,012 37	28
.....	.....	.....	.....	.....	1,588 82	9,677 19	471 36	11,737 37	29
.....	British Post Office Parcels	.....	.....	.....	797 02	.....	.....	797 02	
.....	Embossed Cheques, Departmental	186,239 70	.....	.....	186,239 70	.....	.....	186,239 70	
299,465 80	7,475,125 12	650,171 97	190,212 95	169,451 62	52,482,605 50	9,922,325 22	1,748,664 83	64,153,595 55	

INCOME TAXES

INCOME TAX DIVISION,

OTTAWA, August 27, 1930.

Hon. E. B. RYCKMAN, K.C.,
Minister of National Revenue,
Ottawa.

SIR,—I have the honour to submit a statement showing the amount of taxes collected under the Income War Tax Act for the fiscal year ended March 31, 1930.

I have the honour, to be, sir,

Your obedient servant,

C. S. WALTERS,
Commissioner of Income Tax.

INCOME TAX DIVISION—STATEMENT showing Amount collected under the Income
Tax Act during the Fiscal Year 1929-1930, classified as to
Taxation Years and Districts

Districts	1917-1926 Assess- ments paid	1927 Assess- ments paid	1928 Assess- ments paid	1929 Assess- ments paid	1930 Assess- ments paid in advance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Charlottetown.....	2,582 84	6,422 70	35,224 22	948 83		45,178 59
Halifax.....	50,975 96	17,873 86	561,061 16	17,301 92		647,212 90
St. John.....	10,337 75	9,404 56	565,912 24	26,323 78		611,978 33
Quebec.....	163,758 69	69,481 02	1,127,183 91	16,008 65		1,376,432 27
Montreal.....	548,744 83	343,790 91	20,621,618 59	258,454 84		21,772,609 17
Ottawa.....	43,813 67	97,469 22	2,190,413 25	21,060 34		2,352,756 48
Kingston.....	13,923 09	D 10,639 92	369,285 06	1,190 63		373,758 86
Belleville.....	3,194 37	2,343 68	453,568 07	4,816 27		463,922 39
Toronto.....	828,459 69	474,584 38	17,271,431 68	128,205 36		18,702,681 11
Hamilton.....	158,762 79	147,242 15	5,137,506 74	50,342 98		5,493,854 66
London.....	47,436 84	52,027 39	5,296,502 08	46,292 26	1 84	5,442,260 41
Fort William.....	55,674 78	28,575 77	364,826 41	9,674 32		458,751 28
Winnipeg.....	73,373 60	34,045 82	3,581,486 68	18,862 87		3,707,768 97
Regina.....	17,034 25	21,399 50	635,344 21	10,289 62		684,067 58
Saskatoon.....	20,394 16	539 53	252,517 22	3,020 22		276,471 13
Prince Albert.....	2,597 58	1,483 88	72,074 15	711 34		76,866 95
Calgary.....	67,406 82	86,809 60	1,277,434 92	12,832 55		1,444,483 89
Edmonton.....	37,107 22	11,073 02	496,368 81	11,946 56		556,495 61
Vancouver.....	232,392 37	170,091 62	4,041,215 72	51,949 34		4,495,649 05
Yukon.....	D 3,290 99	D 60 93	22,821 49	387 51		19,857 08
Head Office.....			17,669 52			17,669 52
Total.....	2,374,680 31	1,563,957 76	64,391,466 13	690,620 19	1 84	69,020,726 23

(D) Denotes refunds in excess of collections.

SHIPPING REPORT

RAPPORT DE LA NAVIGATION

SHIPPING REPORT
OF THE
DEPARTMENT OF NATIONAL REVENUE
(CUSTOMS DIVISION)

CONTAINING THE
STATEMENTS OF NAVIGATION AND SHIPPING
OF THE
DOMINION OF CANADA

FOR
THE FISCAL YEAR ENDED MARCH 31

1930

COMPILED FROM OFFICIAL RETURNS IN THE
DEPARTMENT OF NATIONAL REVENUE



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

RAPPORT DE LA NAVIGATION

DU

MINISTÈRE DU REVENU NATIONAL

(SERVICE DES DOUANES)

CONTENANT LA

STATISTIQUE DE LA NAVIGATION INTÉRIEURE ET MARITIME

DU

DOMINION DU CANADA

POUR

L'EXERCICE SE TERMINANT LE 31 MARS

1930

RAPPORTS OFFICIELS COMPIÉS PAR LE
MINISTÈRE DU REVENU NATIONAL



OTTAWA
F. A. ACLAND
IMPRIMEUR DE SA TRÈS EXCELLENTE MAJESTÉ LE ROI
1931

Hon. E. B. RYCKMAN, P.C., K.C., M.P.,
Minister of National Revenue.

SIR,—I have the honour to hand you the Annual Shipping Report of the Department of National Revenue (Customs Division), containing statements of Navigation and Shipping of the Dominion of Canada for the fiscal year ended March 31, 1930, as compiled from official returns.

I have the honour to be, sir,

Your obedient servant,

R. W. BREADNER,
Commissioner of Customs.

OTTAWA, October 28, 1930.

Hon. E. B. RYCKMAN, P.C., K.C., M.P.,
Ministre du Revenu national.

MONSIEUR,—J'ai l'honneur de vous soumettre le rapport annuel de la Navigation du ministère du Revenu national (Service des Douanes), comprenant les tableaux de la navigation intérieure et maritime du Dominion du Canada pour l'exercice se terminant le 31 mars 1930, tel que compilé des rapports officiels.

J'ai l'honneur d'être monsieur,

Votre tout dévoué,

R. W. BREADNER,
Commissaire des Douanes.

OTTAWA, le 28 octobre 1930.

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I., G.C.M.G.,
etc., etc., Governor General and Commander in Chief of the Dominion of
Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of National Revenue containing Statements of Navigation and Shipping of the Dominion of Canada for the fiscal year ended March 31, 1930, as compiled from official returns.

All of which is respectfully submitted.

E. B. RYCKMAN,
Minister of National Revenue.

OTTAWA, October 30, 1930.

*A Son Excellence le Très Honourable Vicomte Willingdon, G.C.S.I., G.C.M.G.,
etc , etc., Gouverneur général et Commandant en chef du Dominion du Canada.*

QU'IL PLAISE A VOTRE EXCELLENCE:

Le soussigné a l'honneur de présenter à Votre Excellence le rapport annuel du ministère du Revenu National, comprenant les tableaux de la navigation et du commerce du Dominion du Canada pour l'exercice se terminant le 31 mars 1930 tel que compilé des rapports officiels.

Le tout respectueusement soumis.

E. B. RYCKMAN,
Ministre du Revenu National.

OTTAWA, le 30 octobre 1930.

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NOTE EXPLICATIVE

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No. 1.—COMPARATIVE STATEMENT showing the Tonnage of all Vessels entered Inwards and Outwards, from 1868 to 1930 inclusive

N° 1.—ÉTAT COMPARATIF indiquant le tonnage de tous les navires déclarés à l'entrée et à la sortie depuis 1868 à 1930 inclusivement.

NAVIGATION

Fiscal Year Exercice	Vessels built — Navires construits	Vessels registered — Navires enregistrés	Vessels entered Inwards and Outwards (Sea-going and Inland Navigation exclusive of Coasting) Navires déclarés à l'entrée et à la sortie (navigation maritime et intérieure à l'exclusion du cabotage)	Vessels entered and cleared Coastwise Navires du cabotage déclarés à l'entrée et à la sortie	Vessels sold to other countries — Navires vendus à d'autres pays	
	Tons Tonnes	Tons Tonnes	Tons Tonnes	Tons Tonnes	Tonnage Tonnage	Value Valeur
					Tons Tonnes	\$
1868	87,230	113,692	12,982,825			
1869	96,439	125,408	10,461,044			
1870	93,166	110,852	11,415,870			
1871	106,101	121,724	13,126,028			
1872	114,065	127,371	12,808,160			
1873	140,370	152,226	11,748,997			
1874	174,404	163,016	11,399,857			
1875	188,098	204,002	9,537,155			
1876	165,041	144,422	9,911,199	10,300,939	64,134	2,189,270
1877	127,297	126,160	11,091,244	8,968,862	46,329	1,576,244
1878	106,976	100,089	12,054,890	11,047,661	35,039	1,218,145
1879	103,551	94,882	11,646,812	12,066,683	19,318	529,821
1880	68,756	64,982	13,577,845	14,053,013	16,208	464,327
1881	79,364	70,210	13,802,432	15,116,766	16,808	348,018
1882	68,240	78,076	13,379,882	14,791,064	16,161	402,311
1883	73,576	78,229	13,770,735	15,683,566	23,896	506,538
1884	70,287	80,822	14,359,026	15,473,707	17,368	416,756
1885	57,486	65,962	14,084,712	15,944,422	13,177	246,277
1886	37,531	40,872	13,969,232	16,368,274	14,343	266,363
1887	26,798	67,662	14,090,998	17,513,677	9,263	143,772
1888	22,698	33,298	15,217,308	18,789,279	14,479	289,969
1889	23,835	31,998	16,054,221	19,834,577	16,173	266,817
1890	39,434	53,853	18,446,100	22,797,115	22,844	442,781
1891	55,477	52,506	18,803,648	24,684,580	15,143	280,474
1892	44,321	61,457	18,692,455	24,783,844	36,399	506,747
1893	38,521	45,796	18,539,534	24,579,123	31,317	363,916
1894	23,497	29,878	20,353,081	26,560,968	21,960	243,429
1895	18,728	26,125	19,100,963	25,473,434	16,567	172,563
1896	10,753	14,144	21,870,473	27,431,753	12,203	99,392
1897	12,058	22,959	23,373,933	27,267,979	9,158	105,164
1898	22,426	27,716	24,746,116	29,663,950	17,210	191,069
1899	22,085	28,257	25,420,110	30,212,496	7,562	126,466
1900	28,544	40,443	26,914,095	33,631,730	13,354	205,618
1901	20,156	35,156	26,029,808	34,444,796	4,490	66,468
1902	28,288	34,236	30,025,404	40,700,907	11,360	235,865
1903	30,856	41,405	33,655,043	44,990,358	11,172	220,602
1904	28,397	33,192	31,202,205	45,505,122	7,208	87,115
1905	21,865	27,583	32,277,820	44,377,261	3,696	100,363
1906	18,724	37,639	34,732,172	46,324,062	9,487	187,725
1907*	33,205	31,635	30,595,891	31,691,420	3,855	68,199
1908	49,928	78,144	39,575,031	50,529,335	4,515	132,900
1909	29,023	32,890	40,701,603	52,670,198	3,644	98,643
1910	24,059	33,383	44,567,991	56,750,928	5,047	133,800
1911	22,812	50,006	47,429,545	66,627,934	5,885	201,526
1912	31,065	30,021	52,973,127	66,267,662	4,265	140,350
1913	24,325	30,225	57,849,783	73,644,713	7,976	610,650
1914	46,887	46,909	61,919,483	78,356,809	8,253	169,618
1915	45,721	55,384	53,604,153	73,099,982	17,044	1,150,950
1916	13,497	102,239	57,721,098	68,709,424	4,529	192,575
1917	28,638	105,826	65,712,544	64,895,622	24,954	4,398,570
1918	53,912	70,350	66,802,488	61,462,600	25,252	5,330,850
1919	104,444	102,883	53,220,048	54,503,325	48,965	14,612,338
1920	164,074	237,022	49,493,533	60,552,658	53,407	17,819,477
1921	95,838	188,915	54,648,630	56,225,509	34,623	8,456,573
1922	78,409	131,732	56,665,253	61,827,089	25,464	3,399,450
1923	14,868	57,446	72,403,183	70,970,078	29,392	1,009,327
1924	20,336	74,311	74,947,373	77,365,128	17,076	605,211
1925	36,147	48,054	77,939,051	80,619,819	21,689	717,739
1926	39,840	88,380	75,246,827	82,887,655	24,673	1,413,150
1927	32,801	79,448	77,341,659	85,742,386	27,027	1,984,040
1928	12,904	64,301	83,803,797	89,527,616	15,307	599,490
1929	49,798	155,972	93,735,227	97,053,685	18,627	154,759
1930	28,871	84,529	89,438,789	87,734,773	33,779	805,636

* 9 months—9 mois.

No. 3.—STATEMENT showing the Trade via St. Lawrence River (Seagoing Vessels) Inwards and Outwards.

N° 3.—ÉTAT du commerce *via* le fleuve Saint-Laurent par long-courriers déclarés à l'entrée et à la sortie.

	Vessels Navires	Tons Register Tonnage enregistré	Freight, Tons weight Poids du fret en tonnes	Freight, Tons measurement Mesurage du fret en tonnes
Inwards—à l'entrée.....	1,368	6,153,126	3,333,313	174,819
Outwards—à la sortie.....	1,126	4,355,804	3,396,560	984,019
Total trade—Total du commerce.....	2,494	10,508,930	6,729,873	1,158,838

No. 4.—STATEMENT of Vessels, British, Canadian and Foreign entered Inwards
from Sea, at each Port and Outport.

No.	Ports and Outports — Ports et ports secondaires	With Cargoes—Chargés									
		British—Britanniques					Canadian—Canadiens				
		Vessels — Navires	Tons register — Tonnage enre- gistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons, measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Vessels — Navires	Tons register — Tonnage enre- gistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page
1	Alert Bay, B.C.										
2	Amherst, N.S.										
3	Annapolis Royal, N.S.										
4	Anyox, B.C.						2	189	3	5	
5	Arichat, N.S.						10	1,238	773		
6	Baddeck, N.S.						1	151	180		
7	Bamfield, B.C.						9	84	45		
8	Barrington Passage, N.S.						5	69	226		
9	Bathurst, N.B.						58	1,186	1,306		
10	Bear River, N.S.										
11	Blubber, Bay B.C.										
12	Bonne Espérance, Que.	20	5,012	34	18	484					
13	Bridgetown, N.S.						1	203	268	400	
14	Bridgewater, N.S.						2	783	742		
15	Britannia Beach, B.C.						40	35,297	8,818		
16	Butedale, B.C.						30	1,464	232		
17	Campbellton, N.B.	1	2,392	2,000		28	2	939	945		
18	Campobello, N.B.						285	2,089	452		
19	Canning, N.S.						1	383	418		
20	Canso, N.S.						1	452	485		
21	Caraquet, N.S.						109	1,980	2,060		
22	Charlottetown, P.E.I.	5	2,086	1,405		44	5	6,700	4,779		
23	Chatham, N.B.										
24	Chemainus, B.C.						5	4,515	2,791		
25	Chester, N.S.						19	261	238		
26	Chicoutimi, Que.	3	6,756	8,381		94					
27	Clark's Harbour, N.S.						10	179	377		
28	Clementsport, N.S.						2	198	2	2	
29	Dalhousie, N.B.										
30	Digby, N.S.						4	408	468		
31	Englewood, B.C.										
32	Freeport, N.S.						4	530	573		
33	Gaspé, Que.	1	1,993	4,500		27	2	699	400		
34	Halifax, N.S.	405	2,023,289	277,406		57,986	509	516,912	361,685	16,214	
35	Hantsport, N.S.										
36	Hillsboro, N.B.										
37	Isaac's Harbour, N.S.										
38	Kentville, N.S.										
39	Kildonan, B.C.						3	2,925	1,607	50	
40	Ladysmith, B.C.										
41	La Have, N.S.						28	3,680	3,763	441	
42	Lévis, Que.	3	5,716	5,980		101					
43	Liverpool, N.S.	5	13,475	80		170	38	2,908	2,759	397	
44	Lockport, N.S.						26	926	385	299	
45	Lord's Cove, N.B.						108	588	192	217	
46	Louisburg, N.S.	5	8,017	12,404		154	6	5,208	6,453	119	
47	Lower East Pubnico, N.S.						12	613	97	163	
48	Lunenburg, N.S.	10	1,314	2,040		75	234	24,910	28,153	4,104	
49	Mahone Bay, N.S.						5	562	685	73	
50	Maitland, N.S.										
51	Meteghan River, N.S.										
52	Moncton, N.B.						1	238	470	6	
53	Montague, P.E.I.										
54	Montreal, Que.	469	2,475,894	1,126,094	121,008	65,916	132	443,597	549,489	1,925	
55	Nanaimo, B.C.									6,446	
56	New Westminster, B.C.	1	3,547	75		34	19	5,675	3,219	195	
57	North Head, N.B.						130	18,656	1,113	1,187	
58	North Sydney, N.S.	153	188,284	34,687		6,765	5	2,223	3,520	30	
59	Ocean Falls, B.C.										
60	Parrsboro, N.S.						2	597	900	13	
61	Paspebiac, Que.										
62	Pictou, N.S.	1	33	28		6	2	2,443	3,120	41	
63	Port Alberni, B.C.										
64	Port Alfred, Que.	9	25,041	58,286		294	7	8,281	18,945	140	
65	Port Hawkesbury, N.S.						17	2,550	472	347	
66	Port La Tour, N.S.						2	28	33	12	
67	Port Williams, N.S.										
68	Powell River, B.C.	1	1,249	1,500		23	36	12,748	1,863	505	
69	Prince Rupert, B.C.						1,094	81,983	4,442	7,497	
70	Quasino, B.C.						15	15,425	9,350	329	
71	Quebec, Que.	307	2,047,012	143,896	15,997	68,354	55	123,516	35,297	107	
72	Richibucto, N.B.									2,040	

No. 4.—STATEMENT of Vessels, British, Canadian and Foreign entered Inwards
from Sea, at each Port and Outport—*Concluded*

No.	Ports and Outports — Ports et ports secondaires	With Cargoes—Chargés									
		British—Britanniques					Canadian—Canadiens				
		Vessels	Tons register	Freight, Tons weight	Freight, Tons, measure- ment	Crew	Vessels	Tons register	Freight, Tons weight	Freight, Tons measure- ment	Crew
		Navires	Tonnage enre- gistré	Poids du fret en tonnes	Mesu- rage du fret en tonnes	Équi- page	Navires	Tonnage enre- gistré	Poids du fret en tonnes	Mesu- rage du fret en tonnes	Équi- page
73	Rimouski, Que.						1	84	162		11
74	Riverport, N.S.						47	5,144	6,020		841
75	Sandy Point, N.S.										
76	Sheet Harbour, N.S.										
77	Shelburne, N.S.	1	95	120		6	2	597	527		11
78	Sherbrooke, N.S.										
79	Shippegan, N.B.						27	341	320		102
80	Sidney, B.C.	1	296	330		12	15	1,279	575		186
81	Sorel, Que.	4	10,347	7,565		149					
82	Souris, P.E.I.						2	28	5		4
83	Stewart, B.C.						3	15	65		4
84	St. Andrews, N.B.						39	823	39		109
85	St. George, N.B.										
86	St. John, N.B.										
87	St. Peters, N.S.	117	625,868	141,599	48,278	14,774	91	172,723	72,843	930	3,975
88	St. Stephen, N.B.						2	34	8	7	4
89	Summerside, P.E.I.	3	1,701	1,872		21	4	1,186	913		32
90	Sydney, N.S.	23	40,131	79,082		475	1	821	872		9
91	Three Rivers, Que.	14	32,262	37,336		416	30	83,916	177,983		1,125
92	Union Bay, B.C.						3	11,073		836	94
93	Vancouver, B.C.	145	724,692	364,644	59,338	14,052	1	67	10		6
94	Victoria, B.C.	87	490,241	4,512	2,857	10,241	723	1,231,413	348,845	28,082	50,535
95	Westport, N.S.						546	998,483	14,760	71	43,313
96	Weymouth, N.S.						2	246	451		10
97	White Rock, B.C.						7	1,460	600		44
98	Windsor, N.S.	55	109,851	1,028		1,501					
99	Winnipeg, Man.	1	1,115			43	7	2,197	2,327		50
100	Wolfeville, N.S.						4	842	768		21
101	Yarmouth, N.S.						84	35,528	6,494		3,044
	Total	1,850	8,847,709	2,317,220	247,496	242,245	4,734	3,885,589	1,699,180	32,365	146,981

N° 4.—ÉTAT des long-courriers britanniques, canadiens et étrangers déclarés à l'entrée à chaque port et port secondaire—*Fin*

With Cargoes—Chargés					In Ballast—Sur lest										No.
Foreign—Étrangers					British — Britanniques			Canadian — Canadiens			Foreign — Étrangers				
Ves- sels — Na- vires	Tons register — Tonnage enre- gistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Ves- sels — Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	Ves- sels — Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	Ves- sels — Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page		
2	2,388	200		40	2	3,703	52								73
1	475	700		7				48	2,838	370					74
60	4,060	948		1,293	1	99	6	2	463	10	32	2,331	688	75	
								1	894	20	12	12,757	254	76	
71	4,910	818		1,469				3	168	23	56	3,715	1,079	77	
											36	28,607	645	78	
6	54,752	16,050		235				68	11,296	451	514	161,057	8,704	79	
					1	186	13							80	
2	902	927		25				2	182	8				81	
6	2,254	196		81				9	4,837	97	1	479	18	82	
266	5,484	5,778		558				861	40,674	3,394	290	3,632	641	83	
								8	1,842	17	40	1,102	65	84	
192	364,435	155,121	82	9,343	31	78,817	1,159	112	14,386	1,296	266	68,874	1,502	85	
											8	7,570	149	86	
12	2,407	2,073		59				2	35	4	10	164	25	87	
1	1,892	509		29										88	
118	305,228	907,226		3,664	35	91,109	1,182	19	27,081	430	71	68,396	1,273	89	
9	22,326	38,194		272	18	89,695	1,142	10	35,640	383	2	3,191	53	90	
14	1,099	355		75	19	56,289	699	14	1,414	103	13	17,702	291	91	
583	1,804,857	922,774	16,418	23,044	179	656,087	8,578	424	207,281	7,649	450	1,081,764	13,677	92	
559	1,353,346	25,817	12,249	40,989	22	69,646	2,317	373	139,891	6,702	720	1,154,194	36,130	93	
3	288	255		10				4	128	11	23	287	59	94	
								12	2,304	60	6	3,073	64	95	
								7	277	37	2	20	5	96	
9	7,597	8,427		169	38	75,659	1,029	8	1,915	40	43	34,826	624	97	
														98	
2	396	340		9										99	
150	392,640	314,568		17,346				46	3,217	391	112	5,821	1,090	100	
4,243	7,325,184	4,109,950	64,896	178,995	1,008	1,877,136	30,833	4,192	944,315	38,999	5,556	4,275,833	109,884	101	

No. 5.—STATEMENT of Vessels, British, Canadian and Foreign, entered Inwards
from Sea

ABSTRACT BY COUNTRIES

No.	Ports and Outports — Ports et ports secondaires	With Cargoes—Chargés									
		British—Britanniques					Canadian—Canadiens				
		Vessels — Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons, measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Vessels — Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page
1	Great Britain.....	847	5,158,580	970,629	148,742	150,990	13	28,817	15,582	836	383
2	Australia.....	27	207,238	12,511	22,113	6,348	14	51,939	14,755	1,394	581
3	British South Africa.....	4	15,238	23,943	.....	135	.....	.....	.....	.....	.....
4	British West Africa.....	14	48,290	89,784	.....	624	.....	.....	.....	.....	.....
5	British Guiana.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	British East Indies.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	British India.....	24	86,068	32,300	.....	1,623	.....	.....	.....	.....	.....
8	British West Indies.....	14	33,574	64,353	.....	425	197	531,600	167,260	1,538	12,176
9	British Oceania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	British Straits Settle- ments.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Fiji Islands.....	6	21,734	41,556	180	294	.....	.....	.....	.....	.....
12	Gibraltar.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Hong Kong.....	17	111,755	12,801	5,721	1,770	1	8,883	1,960	3,904	545
14	Irish Free State.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Newfoundland.....	343	431,905	50,127	24	16,186	113	128,632	174,312	.....	3,214
16	New Zealand.....	20	121,358	23,636	60	2,678	20	67,455	6,996	.....	809
17	Argentina.....	13	35,955	67,746	.....	446	17	63,097	47,145	.....	704
18	Belgium.....	61	498,125	66,829	27,545	14,601	38	123,641	108,582	30	1,568
19	Brazil.....	.....	.....	.....	.....	.....	4	13,612	15,064	.....	188
20	Chile.....	2	6,270	5,815	.....	70	.....	.....	.....	.....	.....
21	China.....	12	84,906	758	77	1,739	2	17,766	87	71	1,106
22	Colombia.....	8	41,842	96,100	.....	292	14	74,022	203,523	.....	579
23	Costa Rica.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Cuba.....	3	5,675	12,773	.....	75	1	1,912	2,500	.....	32
25	Denmark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Dutch East Indies.....	1	3,222	7,100	.....	74	.....	.....	.....	.....	.....
27	Dutch West Indies.....	7	30,260	36,256	.....	366	.....	.....	.....	.....	.....
28	Egypt.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	France.....	28	195,602	25,754	5,626	5,274	.....	.....	.....	.....	.....
30	French Africa.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Germany.....	31	262,340	25,824	19,393	7,690	.....	.....	.....	.....	.....
32	Greece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Greenland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Guatemala.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Hawaii.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Honduras.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Italy.....	1	3,218	1,040	.....	44	.....	.....	.....	.....	.....
38	Japan.....	15	127,515	12,717	17,702	4,990	23	197,922	31,269	23,915	12,028
39	Jugo-Slavia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Mexico.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Netherlands.....	26	140,724	18,674	.....	1,634	1	2,603	3,629	.....	40
42	Norway.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Panama.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Peru.....	5	25,968	60,592	.....	209	22	114,804	293,564	.....	889
45	Philippines.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
46	Poland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
47	Portugal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
48	Portuguese Africa.....	1	4,042	8,887	.....	56	.....	.....	.....	.....	.....
49	Russia.....	16	39,276	86,653	.....	490	.....	.....	.....	.....	.....
50	San Domingo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
51	Siam.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
52	Spain.....	4	7,557	13,545	.....	112	4	2,111	3,470	.....	25
53	St. Pierre.....	3	211	.....	.....	19	12	6,550	175	.....	376
54	Sweden.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
55	United States.....	295	1,098,965	448,364	313	22,946	2,091	2,330,253	459,289	670	91,710
56	Venezuela.....	.....	.....	.....	.....	.....	4	22,845	100,000	.....	176
57	From Sea.....	.....	.....	.....	.....	.....	6	63	15	.....	21
58	Sea Fisheries.....	2	296	75	.....	45	2,137	97,062	50,003	7	19,837
Total.....		1,850	8,847,709	2,317,220	247,496	242,245	4,734	3,885,589	1,699,180	32,365	146,981

N° 5.—ÉTAT des long-courriers britanniques, canadiens et étrangers, déclarés à l'entrée

RELEVÉ PAR PAYS

With Cargoes—Chargés						In Ballast—Sur lest										No.
Foreign—Étrangers					British—Britanniques			Canadian—Canadiens			Foreign—Étrangers					
Ves-sels—Navires	Tons register—Tonnage enregistré	Freight, Tons weight—Poids du fret en tonnes	Freight, Tons measurement—Mesurage du fret en tonnes	Crew—Équipage	Ves-sels—Navires	Tons register—Tonnage enregistré	Crew—Équipage	Ves-sels—Navires	Tons register—Tonnage enregistré	Crew—Équipage	Ves-sels—Navires	Tons register—Tonnage enregistré	Crew—Équipage			
94	182,184	283,426	935	2,866	101	378,273	5,193	17	53,342	678	8	20,949	242	1		
3	7,879	19,857		44	17	60,587	677				6	16,836	182	2		
8	11,586	14,795		194	3	8,528	92				1	3,120	34	3		
1	1,770	4,100		23	2	5,708	69							4		
136	163,596	157,815	3	3,208	27	2,548	223	15	5,059	198	8	3,955	142	5		
2	8,107	534		89	2	6,331	74							6		
					1	2,724	34							7		
3	14,293	44		338	2	7,135	70							8		
1	2,920	443		42							2	7,582	134	9		
103	271,035	803,076		3,261	290	81,626	3,402	128	65,300	2,056	132	115,988	2,495	10		
20	57,829	39,460	94	618	7	25,066	313				3	10,620	101	11		
58	212,899	83,412	18	2,571	3	9,521	110				2	7,245	67	12		
2	7,063	735		69	4	9,938	122				4	15,044	152	13		
7	59,517	21,193		277										14		
39	207,302	7,697	5,735	3,663	33	113,810	1,391	2	7,060	93	14	44,220	478	15		
18	104,005	266,000		752	1	3,040	31							16		
11	16,903	47,132		270	1	3,510	45							17		
68	356,105	21,480		12,361										18		
3	9,473	13,044		127							1	2,574	36	19		
					1									20		
55	213,938	30,308	577	4,810	2	3,336	34							21		
					2	6,424	74				2			22		
140	713,573	72,673	32,863	16,093	3	10,171	102				2	3,099	74	23		
1	1,295	2,000		22	2	6,838	88				2	5,036	62	24		
1	4,493	47		35							3	9,799	147	25		
2	2,887	2,700									4	10,624	132	26		
35	137,358	34,582		66	3	10,442	115							27		
113	616,601	19,810	21,672	11,227	14	43,597	466	1	4,184	45	4	13,318	169	28		
					83	294,680	4,828	4	16,332	664	12	41,033	424	29		
					1	3,191	35				152	588,145	6,693	30		
77	431,428	59,475	614	8,661	2	3,412	50	5	237	29	1	2,670	32	31		
32	190,031	56,500		5,396	2	5,745	78				5	69	6	32		
											5	18,510	179	33		
12	46,650	71,779		417	1	3,013	33				5	13,548	162	34		
4	16,155	290		140	1	2,991	29							35		
1	3,920	187		187		2,750	34				1	2,829	36	36		
2	5,944	3,196		66	2	6,359	65					5,442	35	37		
														38		
4	9,823	18,521		131	5	13,776	177							39		
6	13,405	25,434		163				1	49	9				40		
7	20,346	8,994		188							1	4,283	34	41		
6	3,572	1,027		116	31	4,092	267	183	16,221	1,687	2	1,229	116	42		
40	294,655	10,739		8,629							37	23,122	819	43		
1,878	2,863,144	1,894,188	2,327	79,747	232	694,291	9,854	3,590	765,755	31,579	4,557	3,186,670	81,557	44		
	48	20		9	42	38,634	1,462	69	3,578	440	8	18,840	1,497	45		
1,249	41,452	13,424	58	10,580	86	5,049	1,196	177	7,198	1,521	537	79,434	13,647	46		
4,243	7,325,184	4,109,950	64,896	178,995	1,008	1,877,136	30,833	4,192	944,315	38,999	5,556	4,275,833	109,884	47		

No. 5.—STATEMENT of Vessels, British, Canadian and Foreign, entered Inwards
from Sea—Concluded

RECAPITULATION

With cargo Chargés	Vessels Navires	Tons Register Tonnage enregistré	Freight, tons Weight Poids du fret en tonnes	Freight, tons Measurement Mesurage du fret en tonnes	Crew Équipage
British—Britanniques.....	1,850	8,847,709	2,317,220	247,496	242,245
Canadian—Canadiens.....	4,734	3,885,589	1,699,180	32,365	146,981
Foreign—Étrangers.....	4,243	7,325,184	4,109,950	64,896	178,995
Total.....	10,827	20,058,482	8,126,350	344,757	568,221

N° 5.—ÉTAT des long-courriers britanniques, canadiens et étrangers, déclarés
à l'entrée—*Fin*

RÉCAPITULATION

In Ballast — Sur lest	Vessels — Navires	Tons Register — Tonnage enregistré	Freight, tons Weight — Poids du fret en tonnes	Freight, tons Measurement — Mesurage du fret en tonnes	Crew — Équipage
British—Britanniques.....	1,008	1,877,136	.....	.....	30,833
Canadian—Canadiens.....	4,192	944,315	.....	.....	38,999
Foreign—Étrangers.....	5,556	4,275,833	.....	.....	109,884
Total.....	10,756	7,097,284	.....	.....	179,716
Grand total.....	21,583	27,155,766	8,126,350	344,757	747,937

No. 6.—STATEMENT of Vessels, British, Canadian and Foreign, entered Outwards for Sea at each Port and Outport

No.	Ports and Outports — Ports et ports secondaires	With Cargoes—Chargés									
		British—Britanniques					Canadian—Canadiens				
		Vessels Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons, measure- ment — Mesu- rage du fret en tonnes	Crew Équi- page	Vessels Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew Équi- page
1	Alert Bay, B.C.						1	1,238	60		24
2	Amherst, N.S.	4	389	779		21	2	388	625	295	12
3	Annapolis Royal, N.S.						9	853	1,850	2,035	36
4	Anyox, B.C.						24	31,896	56,619		563
5	Arichat, N.S.						1	497	400		19
6	Baddeck, B.C.	1	791		1,000	17	18	1,225	1,205		65
7	Bamfield, B.C.										
8	Barrington Passage, N.S.						3	1,245		832	19
9	Bathurst, N.B.						1	294		775	6
10	Bear River, N.S.	15	30,850	89,100		415	123	30,480	22,801		1,267
11	Blubber Bay, B.C.						6				
12	Bonne Espérance, Que.	15	2,924	168		260	10	3,783	6,381		68
13	Bridgewater, N.S.	1	95	112		36	57	55,695	90,119		1,109
14	Britannia Beach, B.C.	1	3,142	1,000							
15	Butedale, B.C.						4	3,826		3,800	66
16	Campbellton, N.B.	4	7,400		5,056	102	74	527	451		134
17	Campobello, N.B.										
18	Canso, N.S.										
19	Caraquet, N.B.						9	3,342	1,419		89
20	Charlottetown, P.E.I.	18	25,159	1,444		826	4	3,807		11,917	66
21	Chatham, N.B.	4	9,062		9,068	117	122	70,894	68,873	46,743	177
22	Cheminus, B.C.	33	104,818		55,736	1,226					
23	Chester, N.S.										
24	Clark's Harbour, N.S.						5	491	946	1,020	24
25	Clementsford, N.S.						1	296	562		7
26	Dalhousie, N.B.	2	880	1,250		14	21	1,027	920	1,000	69
27	Digby, N.S.						14	4,557	7,102		150
28	Englewood, B.C.	1	2,210	4,480		30	4	196	369		13
29	Freeport, N.S.						11	3,508		750	60
30	Gaspé, Qué.										
31	Guysboro, N.S.						643	502,649	189,381	2,875	17,629
32	Halifax, N.S.	470	2,175,381	175,168	17,031	63,237	19				
33	Hantsport, N.S.	1	840	2,000			1	387	600		6
34	Hillsboro, N.B.						1	92	103		6
35	Isaac's Harbour, N.S.						8	2,604	2,620		119
36	Kildonan, B.C.	3	14,462	3,251		195	53	12,980	22,971		756
37	Ladysmith, B.C.						3	914	2,100		21
38	La Have, N.S.										
39	Lévis, Que.						40	1,903	1,700		437
40	Liverpool, N.S.	6	14,296	12,507		181					
41	Lockport, N.S.						203	1,219	1,210		404
42	Lords' Cove, N.B.						9	14,185	7,905		179
43	Louisburg, N.S.	15	29,043	28,171		430	1	31	2,30		3
44	Lower East Pubnico, N.S.						18	3,226	3,022		117
45	Lunenburg, N.S.	5	1,089	635		33					
46	Mahone Bay, N.S.						5	1,232	1,569		24
47	Maitland, N.S.						2	348		598	10
48	Meteghan River, N.S.	1	1,442	1,700		25	4	613	580	423	17
49	Moncton, N.B.						3	252	199		15
50	Montague, P.E.I.	23	1,430	1,339		106	112	298,117	242,304		5,457
51	Montreal, Que.	441	2,398,674	1,658,918	895,498	65,326	66	35,272	20,167	1,127	869
52	Nanaimo, B.C.	18	57,449	3,480	10,093	709					
53	Newcastle, N.B.	1	1,697		3,394	26	28	35,118	34,640		333
54	New Westminster, B.C.	91	312,349	148,649		4,183	66	20,966	2,571		1,499
55	North Head, N.B.						1	16,566	24,566		885
56	North Sydney, N.S.	369	204,829	66,326		7,008	53	827	1,179		29
57	Ocean Falls, B.C.	15	61,161	18,969		725					318
58	Parrsboro, N.S.	6	5,189	7,800		85	105	3	1,997		35
59	Paspébiac, Que.	3	3,571		8,769	80					
60	Pictou, N.S.	7	4,019	2,674		105					
61	Pointe-au-Pic, Que.						1	1,464		1,690	23
62	Port Alberni, B.C.	16	54,179		41,950	659	1	3,333	2,505		43
63	Port Alfred, Que.	11	33,715	47,024		429					
64	Port Clyde, N.S.										
65	Port Hawkesbury, N.S.						1	1,375	2,035		20
66	Port La Tour, N.S.										
67	Port Mulgrave, N.S.										
68	Port Williams, N.S.	1	790		467	16	30	26,136	8,429		573
69	Powell River, B.C.	6	23,865	4,274		286	51	81,679	183		3,779
70	Prince Rupert, B.C.	10	4,850	6,599		175	3	2,511	435		57
71	Quatsino, B.C.						30	57,340	9,492		1,210
72	Quebec, Que.	125	652,505	176,652		14					

N° 6.—TABLEAU des navires britanniques, canadiens et étrangers *allant à la mer*, à chaque port ou port secondaire

With Cargoes—Chargés					In Ballast—Sur lest												No.
Foreign—Étrangers					British—Britanniques			Canadian—Canadiens			Foreign—Étrangers						
Ves-sels— Navires	Tons register— Tonnage enregistre	Freight, Tons weight— Poids du fret en tonnes	Freight, Tons measure-ment— Mesurage du fret en tonnes	Crew— Équi-page	Ves-sels— Navires	Tons register— Tonnage enregistre	Crew— Équi-page	Ves-sels— Navires	Tons register— Tonnage enregistre	Crew— Équi-page	Ves-sels— Navires	Tons register— Tonnage enregistre	Crew— Équi-page				
15	13,350	22,368	16,089	267	1	2,210	30	20	305	86	77	1,545	410	1			
7	136	14		58	1	3,980	37	5	64	12	10	3,404	53	2			
13	18,048	9,500	150	310	5	464	121	10	148	51	3	97	24	3			
1	1,440	460	152	25				2	188	12				4			
								15	303	88	1			5			
1	660	1,305		17				9	179	50	6	308	1	6			
2	4,269	537		61				57	891	264				7			
											1	4	1	8			
11	11,501	24,130		211	17	4,596	389	22	17,356	390				9			
30	74,381	73,510		899				1	4	2				10			
											1	1,403	25	11			
6	5,280		8,414	112				11	7,758	200	9	15,881	240	12			
132	1,125	1,381		246				35	647	49	81	2,110	623	13			
4	2,845	5,420		70	5	465	59	345	41,329	2,501	334	11,005	1,021	14			
31	34,075	39,031	10	670				29	2,628	540	31	1,730	327	15			
6	7,370		1,748	123				108	1,048	517				16			
110	261,518	52,063	125,994	2,465										17			
22	137	161		66				156	5,716	1,322	44	4,189	327	18			
								27	418	97	1	15	3	19			
								11	165	55				20			
12	120	67	112	27										21			
17	64,928	84,200		617				1	16	2				22			
16	256	125		49				12	168	72	2	693	41	23			
7	5,573		1,350	85	14	30,791	925							24			
6	8,846	23,413		160										25			
403	1,781,505	95,414	18,993	58,854	31	52,300	614							26			
4	3,526	7,483		77				129	153,912	2,165	24	52,550	743	27			
15	11,212	3,191		250										28			
8	122	82		24										29			
427	25,041	3,935		2,499				6	71	28	16	210	120	30			
25	20,601	10,432		585				43	2,329	237	6	635	53	31			
								44	3,470	347	25	5,020	185	32			
								35	3,886	518				33			
56	6,962	9,900		798	1	4,414	34							34			
15	485	150	148	60		1,188	25	30	2,123	246	1	758	5	35			
85	820	730		170				25	954	309				36			
57	22,249	17,969		980	3	305	39	425	9,595	1,100	81	989	162	37			
18	600	190		69				4	452	75	24	3,151	216	38			
					10	1,440	65	7	389	129	36	1,985	588	39			
2	753	624		12				322	26,017	4,923	6	646	107	40			
3	5	10		7				2	104	8				41			
6	3,503	3,610		79							2	57	8	42			
														43			
205	539,196	990,601	74,772	7,414	57	196,403	2,478	21	110,447	891	84	313,459	3,571	44			
125	178,461	39,297	35,215	2,859				121	18,777	1,047	57		301	45			
2	1,158		2,316	15										46			
153	478,530	240,698		5,049				56	11,518	410	47	27,026	401	47			
146	1,784	2,417		293				80	954	794				48			
41	24,416	46,276		647	111	19,376	1,632	53	12,335	1,295	178	127	19	49			
43	72,588	51,400		1,300				1	27,610	4	3	86,807	7,283	50			
54	27,819	41,420		760							9	22,586	309	51			
10	10,342	11,081	1,452	190										52			
9	9,205	5,828		188							3	2,808	64	53			
2	1,829	2,722		40										54			
51	177,026		130,517	1,870				2	34	9	1	3	2	55			
8	10,567	16,612		181	1	2,533	27				2	1,709	27	56			
52	48,811	31,797		1,025	6	2,055	73	23	2,962	427	9	7,880	164	57			
								2	28	8				58			
2	1,839	2,721		40							2	800	37	59			
9	7,227		7,590	180										60			
94	132,455	53,200	862	2,714	1	1,249	23	14	7,906	223	19	12,247	262	61			
25	11,113	11,399		296	3	11,631	111	1,140	47,680	6,224	1,172	43,287	7,695	62			
51	51,482	76,813		701				2	855	35	6	19,568	182	63			
42	121,559	45,189		1,733	16	32,557	1,293				3	7,682	187	64			
15283—23														65			

No. 6.—STATEMENT of Vessels, Britian, Canadian and Foreign, entered
Outwards for Sea at each Port and Outport—*Concluded*

No	Ports and Outports — Ports et ports secondaires	With Cargoes—Chargés									
		British—Britanniques					Canadian—Canadiens				
		Vessels Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons, measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Vessels Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page
73	Richibucto, N.B.					78	2	1,464		3,584	16
74	Rimouski, Que.	3	5,400	9,142			61	69,446	119,498		1,221
75	Riverport, N.S.						1	114	200		0
76	Sandy Point, N.S.						1	11			3
77	Sheet Harbour, N.S.						3	1,000	1,079		19
78	Shelburne, N.S.	1	95	120		6	2	745		325	14
79	Sherbrooke, N.S.						31	385			120
80	Shippegan, N.B.						22	3,303	3,305	218	184
81	Sidney, B.C.										
82	Sorel, Que.						2	196	63	33	7
83	Souris, P.E.I.						2	2,577	118		45
84	Stewart, B.C.						284	1,787	2,203		519
85	St. Andrews, N.B.						4	1,828	13	5,352	42
86	St. George, N.B.						105	23,548	6,123	35,612	1,411
87	St. John, N.B.	93	506,144	244,691	125,229	12,721					
88	St. Peters, N.S.						1	297	115		9
89	St. Stephen, N.B.						1	452	321		7
90	Summerside, P.E.I.	2	2,283	2,868		34	34	61,040	75,558		1,053
91	Sydney, N.S.	64	130,367	235,909		1,932	11	39,938	28,110		395
92	Three Rivers, Que.	15	80,772	18,365		1,033					
93	Truro, N.S.	2	610	65		12	20	27,341	8,010		527
94	Union Bay, B.C.	50	162,307	42,180		2,004	529	1,157,867	105,417	3,786	45,822
95	Vancouver, B.C.	276	1,171,550	880,273	43,648	19,956	432	608,895	49,014	40	27,740
96	Victoria, B.C.	35	194,098	13,235	148	5,922	4	130	142		12
97	Westport, N.S.						36	6,164	316	13,514	174
98	Weymouth, N.S.						2	72	121		13
99	White Rock, B.C.						28	7,820	8,209	5,390	166
100	Windsor, N.S.	93	185,611	513,497		2,531					
101	Winnipeg, Man.	1	1,115			42					
102	Yarmouth, N.S.						37	29,893	2,697		2,513
	Total	2,378	8,684,897	4,424,814	1,217,126	214,367	3,875	3,420,469	1,295,855	143,736	120,957

N° 6.—TABLEAU des navires britanniques, canadiens et étrangers allant à la mer, à chaque port ou port secondaire—Fin

With Cargoes—Chargés					In Ballast—Sur lest									No.
Foreign—Étrangers					British — Britanniques			Canadian — Canadiens			Foreign — Étrangers			
Ves- sels Na- vires	Tons register — Tonnage enre- gistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Ves- sels Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	Ves- sels Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	Ves- sels Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	
3	3,575		8,854	65										73
9	10,941	17,400		188										74
62	4,165	959		1,323				53	3,899	680				75
16	17,751	21,579		353				1	36	15	32	2,331	683	76
72	4,923	814		1,467										77
40	33,482	58,408		705				3	132	24	58	3,806	1,109	78
17	12,600	21,715	942	281				16	435	91	501	163,359	7,467	79
2	750	777		28				1	96	11				80
418								3	38	6				81
22	7,229	10,802		853				25	18,815	946	7	2,733	98	82
337	752		3,890	86				723	40,478	3,129	136	1,884	295	83
12	341,967	224,599	57,979	8,846	13	37,195	537	4	14	9	18	350	55	84
6	11,696	26,549		237	4	2,603	75	45	8,562	278	74	52,267	997	85
10	179	896	240	26				2						86
6	10,900	16,812		160					595	17	12	1,938	53	87
121	134,147	244,608		2,747	21	51,243	610	25	86,850	880	100	274,587	3,218	88
3	5,804		1,412	83	17	41,185	513	2	6,775	84	8	19,713	236	89
10	29,241	8,123		423				9	1,883	77	25	1,685	137	90
728	2,315,945	1,718,889	8,437	29,649	43	205,345	2,705	452	300,319	8,838	276	543,967	6,375	91
249	514,980	42,113	48	14,444	16	56,113	1,719	435	425,939	21,139	987	1,686,058	57,216	92
30	253	116		53										93
6	3,701	9,727		86							1	15	3	94
1	10	10		2				3						95
61	48,754	102,027	3,365	932					94	11	1	10	3	96
185	316,039	13,708		17,415				79	4,926	949	54	2,840	933	97
5,177	8,131,033	4,701,007	511,051	178,949	398	761,641	14,134	5,344	1,423,575	64,945	4,713	3,414,851	104,772	98

No. 7.—STATEMENT of Vessels, British, Canadian and Foreign, entered Outwards for Sea

ABSTRACT BY COUNTRIES

No.	Ports and Outports — Ports et ports secondaires	With Cargoes—Chargés									
		British—Britanniques					Canadian—Canadiens				
		Vessels — Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons, measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Vessels — Navires	Tons register — Tonnage enregistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page
1	Great Britain.....	855	4,640,030	2,150,924	927,505	113,049	32	100,825	99,851	116	1,219
2	Australia.....	70	362,239	85,486	19,502	8,164	17	63,726	79,234	.....	720
3	British South Africa.....	32	122,441	98,228	74,831	1,624	.....	.....	.....	.....	.....
4	British West Africa.....	4	17,236	8,138	16,903	216	.....	.....	.....	.....	.....
5	British Guiana.....	2	1,290	20	.....	31	54	180,767	47,654	.....	4,006
6	British Honduras.....	.....	.....	.....	.....	.....	6	17,587	3,245	.....	245
7	British West Indies.....	13	24,825	11,988	5,418	350	103	249,794	75,353	1,245	5,358
8	British Oceania.....	11	34,033	1,847	20,059	358	1	32	22	.....	5
9	British Straits Settle- ments.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Fiji Islands.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Hong Kong.....	24	183,009	60,659	29,475	5,194	11	97,243	26,248	3,585	5,999
12	Irish Free State.....	5	15,950	31,996	.....	201	.....	.....	.....	.....	.....
13	Newfoundland.....	592	475,300	135,529	1,054	16,779	147	93,010	97,976	.....	2,932
14	New Zealand.....	11	70,202	3,677	2,898	1,986	27	88,572	112,004	.....	1,117
15	Argentina.....	2	6,101	2,515	.....	111	7	30,630	12,988	.....	776
16	Belgium.....	42	119,942	241,084	961	1,912	11	27,877	10,290	2	399
17	Brazil.....	.....	.....	.....	.....	.....	14	50,028	40,999	.....	552
18	Chile.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	China.....	17	72,465	50,024	2,713	1,060	2	21,694	2	1	1,096
20	Colombia.....	1	2,210	5,400	.....	29	.....	.....	.....	.....	.....
21	Cuba.....	8	15,266	8,445	2	369	4	2,240	808	1,713	59
22	Denmark.....	1	790	.....	467	16	.....	.....	.....	.....	.....
23	Dutch West Indies.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Egypt.....	3	10,699	47	2,274	195	.....	.....	.....	.....	.....
25	France.....	39	272,029	148,909	28,716	8,655	1	587	339	.....	21
26	French Africa.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	French West Indies.....	.....	.....	.....	.....	.....	1	397	600	900	7
28	Germany.....	13	61,058	44,037	.....	1,101	2	4,789	1,065	.....	70
29	Greece.....	9	23,249	56,324	.....	292	.....	.....	.....	.....	.....
30	Guatemala.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Hawaii.....	.....	.....	.....	.....	.....	2	21,600	38	28	1,112
32	Honduras.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Italy.....	25	71,714	170,225	.....	823	1	2,601	7,200	.....	39
34	Japan.....	14	71,339	44,214	6,015	1,789	10	72,292	7,364	11	3,945
35	Mexico.....	.....	.....	.....	.....	.....	3	4,392	614	.....	78
36	Netherlands.....	32	97,236	195,894	.....	1,156	.....	.....	.....	.....	.....
37	Norway.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Panama.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Peru.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Poland.....	1	1,783	4,450	.....	26	.....	.....	.....	.....	.....
41	Porto Rico.....	.....	.....	.....	.....	.....	10	1,374	1,350	.....	59
42	Portugal.....	2	7,181	17,304	.....	84	.....	.....	.....	.....	.....
43	San Domingo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Spain.....	3	9,677	14,407	346	136	.....	.....	.....	.....	.....
45	St. Pierre.....	13	1,199	1,754	.....	75	75	42,387	13,306	83	1,707
46	Sweden.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
47	Turkey.....	2	4,614	12,310	.....	65	.....	.....	.....	.....	.....
48	United States.....	492	1,843,272	818,979	77,987	45,616	2,849	2,196,118	655,905	136,052	81,345
49	Uruguay.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50	Venezuela.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
51	For Sea.....	39	46,370	.....	.....	2,885	.....	.....	.....	.....	.....
52	Sea Fisheries.....	1	148	.....	.....	20	435	49,907	1,400	.....	8,095
Total.....		2,378	8,684,897	4,424,814	1,217,126	214,367	3,875	3,420,469	1,295,855	143,736	120,957

RECAPITULATION

With Cargoes — Chargés	Vessels — Navires	Tons Register — Tonnage enregistré	Freight, tons Weight — Poids du fret en tonnes	Freight, tons Measurements — Mesurage du fret en tonnes	Crew — Équipage
British—Britanniques.....	2,378	8,684,897	4,424,814	1,217,126	214,367
Canadian—Canadiens.....	3,875	3,420,469	1,295,855	143,736	120,957
Foreign—Étrangers.....	5,177	8,131,033	4,701,007	511,051	178,949
Total.....	11,430	20,236,399	10,421,676	1,871,913	514,273

N° 7.—ÉTAT des long-courriers britanniques, canadiens et étrangers déclarés à la sortie

RELEVÉ PAR PAYS

With Cargoes—Chargés						In Ballast—Sur lest										No.
Foreign—Étrangers					British — Britanniques			Canadian — Canadiens			Foreign — Étrangere					
Ves- sels — Na- vires	Tons register — Tonnage enre- gistré	Freight, Tons weight — Poids du fret en tonnes	Freight, Tons measure- ment — Mesu- rage du fret en tonnes	Crew — Équi- page	Ves- sels — Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	Ves- sels — Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page	Ves- sels — Na- vires	Tons register — Tonnage enregistré	Crew — Équi- page			
174	482,389	398,525	62,610	5,885	33	72,402	1,477	3	8,239	110	13	27,584	337	1		
19	56,511	10,890	6,778	661	1	3,157	27							2		
6	20,447	11,540		224										3		
24	30,032	6,140		553										4		
72	97,602	60,337	4,749	1,784	6	2,313	62	38	10,418	380	11	7,910	200	5		
6	14,570	1,200	9,702	169										6		
1	5,313	59		60										7		
3	2,928	3,714	119	64										8		
4	14,600	7,991		141										9		
1	3,664	44		35										10		
137	111,019	153,419	689	2,556	75	58,574	1,451	190	104,646	2,517	101	289,104	3,321	11		
12	42,634	15,217		402										12		
21	67,936	27,970	1,203	693										13		
40	111,815	162,519	30	1,360	1	1,904	30					6,306	64	14		
1	3,005	416		35								2,786	33	15		
3	10,174	381	76	125										16		
61	251,482	187,293	2,378	2,959				1	3,530	44				17		
18	35,883	17,040		537	9	44,732	346	15	80,327	637	5	27,619	202	18		
38	73,322	42,684	686	1,963	2	5,294	59				2	7,392	79	19		
21	88,680	37,295		2,006										20		
1	3,481	7,110		30							1	4,397	30	21		
68	220,368	309,338	533	2,854										22		
1	1,295	3,004		22							2	676	130	23		
115	438,886	342,274	73,864	6,701										24		
14	36,879	84,938		439	2	3,838	54				1	5,785	63	25		
1											2	4,543	58	26		
1	2,729	355		32				1	8,789	544	2	1,066	23	27		
68	223,845	467,891		2,411				3	903	36	2	7,124	78	28		
306	1,327,681	810,133	110,009	17,472	6	45,171	1,521	4	35,438	2,192	3	3,094	66	29		
48	154,557	216,733	168	1,801				12	5,475	117	47	7,349	88	30		
17	62,512	55,924		1,302							1	282,945	6,566	31		
8	23,558	5,884		268				1	1,884	25	1	3,237	41	32		
1	1,217	3,050		22	4	21,988	167	16	79,414	646		1,872	26	33		
														34		
														35		
														36		
														37		
														38		
														39		
														40		
														41		
											1	3,046	36	42		
														43		
														44		
														45		
														46		
														47		
														48		
														49		
														50		
														51		
														52		
5,177	8,131,033	4,701,007	511,051	178,949	398	761,641	14,134	5,344	1,423,575	64,945	4,713	3,414,851	104,772			

RÉCAPITULATION

In Ballast — Sur lest	Vessels — Navires	Tons Register — Tonnage enregistré	Freight, tons Weight — Poids du fret en tonnes	Freight, tons Measurement — Mesurage de fret en tonnes	Crew — Équipage
British—Britanniques.....	398	761,641			14,134
Canadian—Canadiens.....	5,344	1,423,575			64,945
Foreign—Étrangers.....	4,713	3,414,851			104,772
Total.....	10,455	5,600,067			183,851
Grand total.....	21,885	25,836,466	10,421,676	1,871,913	698,124

No. 8.—SUMMARY STATEMENT of Sea-going Vessels entered and cleared at each Port and Outport
RECAPITULATION BY PORTS AND OUTPORTS

N° 8.—ÉTAT SOMMAIRE des arrivages et des départs des long-courriers à chaque port et port secondaire
RÉCAPITULATION PAR PORTS ET PORTS SECONDAIRES

Ports and Outports Ports et ports secondaires	Vessels Arrived Arrivage des navires						Vessels Departed Départ des navires					
	British		Foreign		Total		British		Foreign		Total	
	Britanniques		Étrangers		Total		Britanniques		Étrangers		Total	
	No. — Nomb.	Tons Tonnes	No. — Nomb.	Tons Tonnes	No. — Nomb.	Tons Tonnes	No. — Nomb.	Tons Tonnes	No. — Nomb.	Tons Tonnes	No. — Nomb.	Tons Tonnes
Alert Bay, B.C.	17	2,586	77	1,542	94	4,128	22	3,753	77	1,545	99	5,298
Anaherst, N.S.	6	736	8	3,366	14	6,102	6	777	15	13,350	21	14,127
Annapolis Royal, N.S.	4	418	8	3,366	14	6,102	6	777	15	13,350	9	853
Anyox, B.C.	7	1,343	10	3,404	17	4,747	30	35,940	10	3,404	40	39,344
Archat, N.S.	10	1,151	10	2,233	20	3,384	10	1,148	10	2,233	20	3,381
Baddeck, N.S.	5	1,134	12	16,620	17	17,754	9	1,940	13	18,048	22	19,988
Bamfield, B.C.	29	1,588	1	4	30	1,592	33	1,598	2	1,444	35	2,972
Barrington Passage, N.S.	7	1,193	8	4,220	15	4,013	9	1,179	6	308	15	2,487
Bathurst, N.B.	58	1,186	3	3,615	61	4,801	60	2,136	1	660	61	2,796
Bear River, N.S.	1	30,850	1	4	16	30,854	16	37,144	1	4	17	31,148
Blubber Bay, B.C.	33	22,887	2	4,269	35	27,156	143	47,836	2	4,269	147	52,105
Bonne Espérance, Que.	40	8,382	40	8,382	80	16,764	33	7,524	2	4,269	33	7,524
Bridgetown, N.S.	1	203	12	11,675	13	12,774	11	3,878	12	12,904	23	16,782
Bridgewater, N.S.	3	1,099	9	11,675	12	12,774	11	3,878	12	12,904	23	16,782
Britannia Beach, B.C.	70	62,870	39	90,262	109	153,132	69	66,595	39	90,262	108	156,857
Butedale, B.C.	36	1,489	81	2,046	117	3,535	35	6,647	81	2,046	116	2,757
Campbellton, N.B.	3	3,331	3	3,013	6	6,344	8	11,226	6	5,280	14	16,506
Campobello, N.B.	512	27,941	480	11,958	992	39,899	419	41,856	466	12,130	885	53,986
Canning, N.S.	1	383	1	383	2	766	1	383	1	383	2	766
Canso, N.S.	35	4,928	33	3,676	68	8,604	34	3,093	35	4,575	69	7,668
Caracquet, N.B.	109	1,980	109	1,980	218	3,960	108	1,948	108	1,948	216	3,896
Charlottetown, P.E.I.	14	9,240	15	19,781	29	29,021	27	28,501	31	34,675	58	63,176
Chatham, N.B.	2	5,539	3	1,298	5	6,837	2	12,869	6	7,370	14	20,239
Chenamus, B.C.	258	86,951	104	112,765	362	199,716	311	181,428	154	265,707	465	447,135
Chester, N.S.	28	416	1	15	29	431	27	418	1	15	28	433
Chicoutimi, Que.	3	6,756	3	4,835	6	11,591	11	165	22	137	33	302
Clark's Harbour, N.S.	10	179	20	426	30	605	11	165	22	137	33	302
Clementsport, N.S.	4	396	2	1,729	6	396	5	491	3	491	8	491
Dalhousie, N.B.	15	985	16	821	31	1,806	22	1,043	14	813	36	1,806
Digby, N.S.	13	4,558	18	69,648	31	74,206	27	6,935	17	64,928	44	71,863
Englewood, B.C.	4	530	16	256	20	786	4	196	16	256	20	452
Freepoint, N.S.	23	32,555	3	2,105	26	34,660	25	34,299	6	5,573	31	39,872
Gaspé, Que.	23	32,555	3	2,105	26	34,660	25	34,299	6	5,573	31	39,872
Guysboro, N.S.	7	8,846	7	8,846	14	17,692	7	8,846	7	8,846	14	17,692

Hallifax, N.S.	1,056	2,638,973	469	1,814,548	1,525	4,453,521	1,273	2,884,242	487	1,834,055	1,760	4,718,297
Hantsport, N.S.			1	739	1	739		840	4	3,526	5	4,366
Hillsboro, N.B.			13	11,066	13	11,066		387	15	11,212	16	11,569
Isaac's Harbour, N.S.			18	1,158	22	1,202	7	163	24	332	31	495
Kentville, N.S.			44									
Ladonan, B.C.			1	198	1	198						
Ladysmith, B.C.			423	13,533	463	32,804	64	19,395	433	25,676	487	45,071
La Have, N.S.			56	25,355	109	49,874	97	16,550	30	25,621	38	4,800
Lévis, Que.			33	4,283	34	4,448	38	4,400				4,414
Liverpool, N.S.			70	5,716	4	8,770	1	414				
Lockport, N.S.			58	6,954	128	24,901	77	19,510	57	7,720	134	27,230
Lord's Cove, N.B.			9	374	35	1,300	25	954				43
Louisburg, N.S.			182	1,983	847	12,446	628	10,814	166	1,809	794	4,439
Lower East Pubnico, N.S.			71	13,125	91	38,524	31	43,985	81	25,400	112	69,385
Lunenburg, N.S.			54	2,561	66	3,174	8	420		2,585	62	3,005
Malbone Bay, N.S.			7	1,061	312	31,895	355	31,772	6	646	361	32,418
Maitland, N.S.					6	614	2	102			2	104
Meteghan River, N.S.			2	753	5	1,661	5	1,222	2	753	7	1,985
Moncton, N.B.			4	480	16	2,294	2	348	5	62	11	5,558
Montague, P.E.I.			4	2,046	8	4,041	5	5	6	3,503	77	5,558
Montreal, Que.					17	856	26	1,682				1,682
Nanaimo, B.C.			267	825,440	901	3,846,525	631	3,003,641	289	852,655	920	3,856,296
Newcastle, N.B.			157	113,916	208	128,389	205	111,408	182	181,338	387	292,836
New Westminster, B.C.							1	1,697				2,855
North Head, N.B.			199	503,474	424	870,392	200	358,985	200	505,556	409	864,541
North Sydney, N.S.			159	1,960	478	36,786	308	33,301	154	1,911	462	35,212
Ocean Falls, B.C.			210	89,647	809	382,899	599	280,606	219	111,223	818	391,829
Parrisho, N.S.			52	93,162	53	93,166	17	61,992	52	95,174	69	157,166
Paspébiac, Que.			50	25,553	96	37,981	59	21,755	54	27,819	113	49,574
Pictou, N.S.			24	25,266	24	25,266	3	5,566	13	13,150	16	16,721
Pointe-au-Pic, Que.			5	4,392	9	7,091	10	9,205	9	9,205	19	15,191
Port Alberni, B.C.					35	105,540	19	55,677	2	1,829	2	1,829
Port Alfred, Que.			24	82,459	35	105,540	19	55,677	52	177,029	71	232,706
Port Clyde, N.S.			23	34,787	44	84,428	13	39,581	9	12,276	22	51,857
Port Hawkesbury, N.S.					93	57,793	29	5,017	2	53	2	53
Port La Tour, N.S.			56	52,599	93	57,793	29	5,017	61	56,691	90	61,708
Port Mulgrave, N.S.					2	28		98				28
Port Williams, N.S.			6	4,967	6	4,967	1	1,275	4	2,639	2	4,014
Powell River, B.C.			111	144,408	168	189,837	1	59,156	9	7,227	5	8,017
Prince Rupert, B.C.			1,201	53,219	2,406	202,455	51	159,130	113	144,702	104	203,858
Quatsino, B.C.			51	44,491	68	60,754	1,204	145,849	1,197	54,400	2,401	200,240
Quebec, Que.			83	239,122	490	2,446,478	177	742,402	57	71,050	62	74,416
Richibucto, N.B.			1	744	2	446,478	2	1,404	45	129,241	216	871,643
Rimouski, Que.			1	744	2	446,478	2	1,404	45	129,241	216	871,643
Riverport, N.S.			2	2,388	5	6,275	64	7,846	3	3,575	5	5,039
Sandy Point, N.S.			2	475	96	8,457	53	7,846	9	10,941	73	85,787
Sheet Harbour, N.S.			1	6,391	6,953	3,889	53	130	94	6,496	53	3,899
Shelburne, N.S.			12	12,757	133	13,631	2	1,101	16	17,751	96	6,646
Sherbrooke, N.S.			127	8,625	133	9,485	7	1,227	130	8,729	17	17,762
Shippegan, N.B.			36	28,607	26	28,607	2	745	40	33,482	42	34,227
Sidney, B.C.				341	37	341	31	385			31	385
Sorel, Que.			27	84	27	84	27	84			27	84
Souris, P.E.I.			520	215,809	604	238,680	38	3,788	518	175,959	556	179,697
Stewart, B.C.			4	10,533	5	10,533	38	3,788	518	175,959	556	179,697
St. Andrews, N.B.			2	902	6	1,112	5	96	2	750	3	846
St. George, N.B.			12	4,552	19	7,585	7	234	7	2,733	5	234
St. John, N.B.			556	9,116	1,456	50,613	97	21,392	7	2,733	34	24,125
St. John's, N.S.			40	1,102	48	2,944	1,007	42,259	554	9,113	1,661	51,372
St. John's, N.S.			458	433,309	809	1,325,103	256	575,449	40	1,102	48	2,944
St. John's, N.S.			34	7,570	10	7,604	4	2,003	12	11,696	16	14,299

No. 9.—STATEMENT of Nationalities of Sea-going Vessels entered and cleared
N° 9.—ÉTAT de la nationalité des long-courriers, arrivés et partis
ABSTRACT BY NATIONALITIES—RÉSUMÉ PAR NATIONALITÉS

Arrived—Arrivés			Departed—Partis		
Flag—Pavillon			Flag—Pavillon		
	Number			Number	
	Nombre	Tons		Nombre	Tons
Great Britain.....	11,784	15,554,749	Great Britain.....	11,995	14,290,582
Belgium.....	10	34,338	Belgium.....	10	33,862
China.....	14	55,105	China.....	16	64,253
Denmark.....	196	657,162	Denmark.....	196	664,748
Finland.....	3	267,647	Finland.....	3	7,162
France.....	308	729,539	France.....	273	278,505
Germany.....	151	42,880	Germany.....	143	678,162
Greece.....	16	2,887	Greece.....	17	47,316
Honduras.....	2	92,135	Honduras.....	2	3,094
Italy.....	70	1,985,453	Italy.....	82	315,510
Japan.....	358	6,943	Japan.....	402	1,564,693
Mexico.....	3	513,900	Mexico.....	1	439,906
Netherlands.....	90	1,693,947	Netherlands.....	89	1,767,299
Nicaragua.....	1	5,651	Nicaragua.....	1	5,651
Norway.....	992	3,438	Norway.....	1	5,096
Panama.....	1	10,093	Panama.....	1	3,400
Peru.....	2	19,745	Peru.....	35	506,517
Poland.....	29	510,656	Poland.....	112	5,127,289
Spain.....	115	7,417	Spain.....	7,520	25,836,466
Sweden.....	21,583	27,155,766	Sweden.....	21,885	25,836,466
United States.....	7,417	27,155,766	United States.....	7,520	25,836,466
Total.....	21,583	27,155,766	Total.....	21,885	25,836,466

DESCRIPTION OF VESSELS—DESCRIPTION DES NAVIRES

Arrived—Arrivés	Steamers Vapeurs		Sailing Vessels Voiliers		Total	
	Number Nombre	Tons Tonnes	Number Nombre	Tons Tonnes	Number Nombre	Tons Tonnes
British—Britanniques.....	10,142	15,294,503	1,642	260,246	11,784	15,554,749
Foreign—Étrangers.....	9,318	11,459,838	481	141,179	9,799	11,601,017
Total.....	19,460	26,754,341	2,123	401,425	21,583	27,155,766
Departed—Partis	Steamers Vapeurs		Sailing Vessels Voiliers		Total	
	Number Nombre	Tons Tonnes	Number Nombre	Tons Tonnes	Number Nombre	Tons Tonnes
British—Britanniques.....	10,306	14,009,602	1,689	280,680	11,995	14,290,582
Foreign—Étrangers.....	9,424	11,415,537	466	130,347	9,890	11,545,884
Total.....	19,730	25,425,139	2,155	411,327	21,885	25,836,466

No. 10.—SUMMARY STATEMENT of Sea-going Vessels entered Inwards and Outwards
N° 10.—ÉTAT SOMMAIRE des long-courriers déclarés à l'entrée et à la sortie

Nationalities — Nationalités	Sea-going Vessels, Inwards — Long-courriers à l'entrée					Sea-going Vessels, Outwards — Long-courriers à la sortie					Total Sea-going Vessels, Inwards and Outwards — Total des long-courriers à l'entrée et à la sortie				
	Vessels Navires	Tons register Tonnage enregistré	Freight, Tons weight Poids du fret en tonnes	Freight, Tons measure- ment — Mesurage du fret en tonnes	Crew — Équi- page	Vessels — Navires	Tons register Tonnage enregistré	Freight, Tons weight Poids du fret en tonnes	Freight, Tons measure- ment — Mesurage du fret en tonnes	Crew — Équi- page	Vessels Navires	Tons register Tonnage enregistré	Freight, Tons weight Poids du fret en tonnes	Freight, Tons measure- ment — Mesurage du fret en tonnes	Crew — Équi- page
British—Britanniques.	2,858	10,724,845	2,317,220	247,496	273,078	2,776	9,446,538	4,424,814	1,217,126	228,501	5,634	20,171,383	6,742,034	1,464,622	501,579
Canadian—Canadiens.	8,926	4,829,904	1,699,180	32,365	185,980	9,219	4,844,044	1,295,855	143,736	185,902	18,145	9,673,948	2,995,035	176,101	371,882
Foreign—Étrangers...	9,799	11,601,017	4,109,950	64,896	288,879	9,890	11,545,884	4,701,007	511,051	283,721	19,689	23,146,901	8,810,957	575,947	572,600
Total	21,583	27,155,766	8,126,350	344,757	747,937	21,885	25,836,466	10,421,676	1,871,913	698,124	43,468	52,992,232	18,548,026	2,216,670	1,446,061

No. 11.—SUMMARY STATEMENT of Vessels arrived and departed (exclusive of Coasting Vessels)
 N° 11.—ÉTAT SOMMAIRE des arrivages et des départs des navires (à l'exclusion des cabotiers)

Nationalities — Nationalités	Sea-going Vessels, Inwards and Outwards Long-courriers, à l'entrée et à la sortie			Vessels of the Inland Waters between Canada and the United States Navires des eaux intérieures, entre le Canada et les États-Unis			Total Shipping (Exclusive of Coasting Vessels), Inwards and Outwards Nombre total des navires (à l'exclusion des cabotiers), à l'entrée et à la sortie		
	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage
British—Britanniques.....	5,634	20,171,383	501,579	.....	.....	.....	5,634	20,171,383	501,579
Canadian—Canadiens.....	18,145	9,673,948	371,882	22,106	19,463,850	558,880	40,251	29,137,798	930,762
Foreign—Étrangers.....	19,689	23,146,901	572,600	88,236	16,982,707	530,206	107,925	40,129,608	1,102,806
Total.....	43,468	52,992,232	1,446,061	110,342	36,446,557	1,089,086	153,810	89,438,789	2,535,147

TRADE WITH EACH COUNTRY AND NATIONALITY OF VESSELS

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards *from Sea* at each of the undermentioned Ports and Out-ports in Canada distinguishing the Nationality of the Vessels employed in the trade with each Country.

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter
	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré
Alert Bay, B.C.										
United States.....(a)	6	2,430	69	1,323						
Sea Fisheries.....(a)	11	156	8	219						
Total.....	17	2,586	77	1,542						
Amherst, N.S.—										
Newfoundland.....(a)					2	1,379				
Newfound dland.....(b)	4	394								
St. Pierre.....(a)					1	701				
St. Pierre.....(b)										
United States.....(a)					3	2,341				
United States.....(b)	2	342								
Total.....	6	736			6	4,421				
Annapolis Royal, N.S.—										
United States.....(b)	4	418								
Anyox, B.C.—										
United States.....(a)	4	1,322	10	3,404						
Sea Fisheries.....(a)	3	21								
Total.....	7	1,343	10	3,404						
Arichat, N.S.—										
Sea Fisheries.....(b)	10	151	10	233						
Baddeck, N.S.—										
Newfoundland.....(a)	1	894								
Newfoundland.....(b)	2	52								
United States.....(a)					12	16,620				
Sea Fisheries.....(b)	2	188								
Total.....	5	1,134			12	16,620				
Bamfield, B.C.—										
From Sea.....(a)	15	280								
United States.....(b)	14	1,308	1	4						
Total.....	29	1,588	1	4						
Barrington Passage, N.S.—										
St. Pierre.....(a)	1	57								
United States.....(a)	1	67	2	76						
Sea Fisheries.....(a)	5	69	6	344						
Total.....	7	193	8	420						
Bathurst, N.B.—										
Great Britain.....(a)					2	1,936				
British West Indies.....(b)	1	295								
United States.....(a)					1	1,679				
Sea Fisheries.....(b)	57	891								
Total.....	58	1,186			3	3,615				
Bear River, N.S.—										
United States.....(a)	15	30,850	1	4						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels
entered Inwards from Sea, etc.—*Concluded*

Ports and Outports ad Countries whence Arrived — Ports et ports secondaires et pays de départ	Great-Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Blubber Bay, B.C.— United States.....(a)	33	22,887	1	1,440	1	2,829				
Bonne Espérance, Que.— Newfoundland.....(a)	20	7,147								
Newfoundland.....(b)	20	1,235								
Total.....	40	8,382								
Bridgetown, N.S.— United States.....(b)	1	203								
Bridgewater, N.S.— United States.....(a)					9	11,675				
United States.....(b)	3	1,099								
Total.....	3	1,099			9	11,675				
Britannia Beach, B.C.— United States.....(a)	69	59,728	32	63,853	1	2,723				
China.....(a)	1	3,142								
Japan.....(a)										
Total.....	70	62,870	32	63,853	1	2,723				
Butedale, B.C.— Sea Fisheries.....(a)	36	1,489	81	2,046						
Campbellton, N.B.— Newfoundland.....(a)					2	1,658				
United States.....(a)	3	3,331								
Total.....	3	3,331			2	1,658				
Campobello, N.B.— United States.....(a)	512	27,941	480	11,958						
Canning, N.S.— United States.....(b)	1	383								
Canso, N.S.— Newfoundland.....(a)					1	649				
Newfoundland.....(b)	2	210								
From Sea.....(a)			1	880						
St. Pierre.....(a)	1	1,188			1	1,282				
United States.....(a)			1	92						
United States.....(b)	1	452								
Sea Fisheries.....(a)	4	433	29	773						
Sea Fisheries.....(b)	27	2,645								
Total.....	35	4,928	31	1,745	2	1,931				
Caraquet, N.B.— Sea Fisheries.....(b)	109	1,980								
Charlottetown, P.E.I.— Great Britain.....(a)					1	899				
British West Indies.....(a)	3	5,730			1	998				
British West Indies.....(b)	1	574								
Newfoundland.....(a)	3	481			3	6,444				
Newfoundland.....(b)	4	309								
St. Pierre.....(b)	1	78								
United States.....(a)	1	1,672	3	4,265	6	6,162				
United States.....(b)	1	396								
Total.....	14	9,240	3	4,265	11	14,503				

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 12.—RELEVÉ du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à l'entrée, etc.—Fin

Denmark Danemark		France France		Germany Allemagne		Netherlands Pays-Bas		Japan Japon		Other Nationalities Autres nationalités			Total	
Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag Pavillon	Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels Na- vires	Tons Regis- ter — Tonnage enre- gistré
													35	27,156
													20	7,147
													20	1,235
													40	8,382
													1	203
													9	11,675
													3	1,099
													12	12,774
1	2,647							2	8,508				105	137,459
								3	12,531				1	3,142
1	2,647												3	12,531
								5	21,039				109	153,132
													117	3,535
1	1,355												2	1,658
1	1,355												4	4,686
													6	6,344
													992	39,899
													1	383
													1	649
													2	210
													1	880
													2	2,470
													1	92
													1	452
													33	1,206
													27	2,645
													68	8,604
													109	1,980
													1	899
													4	6,728
													1	574
													6	6,925
													4	309
1	1,013												1	78
													11	13,112
													1	396
1	1,013												29	29,021

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels
entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Chatham, N.B.—										
Great Britain.....(a)	1	3,329								
Newfoundland.....(a)	1	2,210								
United States.....(a)					1	1,298				
Total.....	2	5,539			1	1,298				
Chemainus, B.C.—										
Japan.....(a)										
United States.....(a)	151	28,236	63	30,476	1	2,939	1	2,366		
United States.....(b)	107	58,715	32	49,844						
Total.....	258	86,951	95	80,320	1	2,939	1	2,366		
Chester, N.S.—										
United States.....(a)			1	15						
Sea Fisheries.....(a)	28	416								
Total.....	28	416	1	15						
Chicoitimi, Que.—										
Great Britain.....(a)	3	6,756			1	1,358	1	1,768		
Clarks Harbour, N.S.—										
United States.....(a)	1	49	20	426						
Sea fisheries.....(a)	9	130								
Total.....	10	170	20	426						
Clementsport, N.S.—										
United States.....(a)	4	396								
Dalhousie, N.B.—										
St. Pierre.....(b)										
United States.....(a)					1	1,284				
Total.....					1	1,284				
Digby, N.S.—										
British West Indies.....(b)	1	238								
United States.....(a)	14	747	16	821						
Total.....	15	985	16	821						
Englewood, B.C.—										
United States.....(a)	13	4,558	18	69,648						
Freeport, N.S.—										
United States.....(a)	3	147	16	256						
United States.....(b)	1	383								
Total.....	4	530	16	256						
Gaspé, Que.—										
British West Indies.....(b)	1	323								
Newfoundland.....(a)	15	28,926	2	813						
Newfoundland.....(b)	2	183								
St. Pierre.....(b)	2	192								
Spain.....(a)	1	1,993								
United States.....(b)	2	938								
Total.....	23	32,555	2	813						

(a) Steam—Vapeurs (b) Sail—Voiliers.

N° 12.—RELEVÉ du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à l'entrée, etc.—*Suite*

Denmark Danemark		France France		Germany Allemagne		Netherlands Pays-Bas		Japan Japon		Other nationalities Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
													1	3,329
													1	2,210
													1	1,298
													3	6,837
								3	11,418				3	11,418
								4	15,722				220	79,739
													139	108,559
								7	27,140				362	199,716
													1	15
													28	416
													29	431
1	1,709												6	11,591
													21	475
													9	130
													30	605
													4	396
		1	445										1	445
		1	445										1	1,284
													2	1,729
													1	238
													30	1,563
													31	1,806
													31	74,206
													19	403
													1	383
													20	786
1	1,292												1	323
													18	31,031
													2	183
													2	192
													1	1,993
													2	938
1	1,292												26	34,660

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived Ports et ports secondaires et pays de départ	Great Britain Grand-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Halifax, N.S.—										
Great Britain.....(a)	115	765,931	2	7,809	16	23,349				
British West Indies.....(a)	71	213,701			18	18,645	13	13,282		
Newfoundland.....(a)	108	170,751			17	9,237				
Newfoundland.....(b)	28	2,730			2	228				
Belgium.....(a)	25	228,083	1	3,445	8	25,307			1	2,609
Peru.....(a)	14	65,994			1	5,217				
Cuba.....(a)					1	972	2	2,040		
France.....(a)	1	3,155								
Germany.....(a)										
Netherlands.....(a)										
Italy.....(a)										
Norway.....(a)					20	142,742				
Russia.....(a)	1	2,005								
San Domingo.....(a)			2	7,428						
From Sea.....(a)	33	38,253								
From Sea.....(b)	12	819								
St. Pierre.....(a)	56	8,569			5	3,061				
St. Pierre.....(b)	9	1,245	3	994						
Spain.....(a)	2	2,534								
Sweden.....(a)							28	259,789		
United States.....(a)	200	787,431	29	46,743	34	47,385	14	102,047		
United States.....(b)	8	3,290	2	787						
Brazil.....(a)	1	3,361								
Brazil.....(b)	1	244								
Argentina.....(a)	8	25,587								
New Zealand.....(a)	25	109,250								
Colombia.....(a)	11	52,973	2	11,877						
British India.....(a)	24	86,068								
Venezuela.....(a)	4	22,845								
Denmark.....(a)										
Sea Fisheries.....(a)	279	42,897								
Sea Fisheries.....(b)	20	1,257	4	169						
Total.....	1,056	2,638,973	45	79,252	122	276,143	57	377,158	1	2,609
Hantsport, N.S.—										
United States.....(a)					1	739				
Hillsboro, N.B.—										
United States.....(a)					12	10,641				
United States.....(b)			1	425						
Total.....			1	425	12	10,641				
Isaac's Harbour, N.S.—										
United States.....(a)			1	16	1	932				
Sea Fisheries.....(a)	4	44	16	210						
Total.....	4	44	17	226	1	932				
Kentville, N.S.—										
United States.....(b)			1	198						
Kildonan, B.C.—										
United States.....(a)	5	15,150	408	9,661						
Sea Fisheries.....(a)	35	4,121	14	206						
Total.....	40	19,271	422	9,867						
Ladysmith, B.C.										
United States.....(a)	34	20,156	32	15,548						
United States.....(b)	22	5,199	20	4,929						
Total.....	56	25,355	52	20,477						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
La Have, N.S.—										
British West Indies.....(a)	1	33								
British West Indies.....(b)	6	1,415								
United States.....(b)	2	692	1	165						
Sea Fisheries.....(a)	10	587								
Sea Fisheries.....(b)	14	1,556								
Total.....	33	4,283	1	165						
Lévis, Que.—										
Great Britain.....(a)	2	4,601			1	3,054				
Newfoundland.....(a)	1	1,115								
Total.....	3	5,716			1	3,054				
Liverpool, N.S.—										
British West Indies.....(a)	1	300								
Newfoundland.....(a)			1	152						
San Domingo.....(b)	1	49								
St. Pierre.....(a)	26	1,515								
United States.....(a)	5	13,475	5	329	2	2,715				
United States.....(b)	3	1,244	1	66						
Sea Fisheries.....(a)	34	1,364	45	2,433						
Total.....	70	17,947	52	2,980	2	2,715				
Lockeport, N.S.—										
United States.....(b)			9	374						
Sea Fisheries.....(b)	26	926								
Total.....	26	926	9	374						
Lord's Cove, N.B.—										
United States.....(a)	665	10,453	182	1,993						
Louisburg, N.S.—										
Great Britain.....(a)	5	12,480	1	3,849						
Newfoundland.....(a)	4	4,244			1	934				
Newfoundland.....(b)	3	405			1	67				
Cuba.....(a)	1	1,912								
France.....(a)										
Italy.....(a)	1	4,184								
St. Pierre.....(b)	2	183								
United States.....(a)	1	1,868			1	681				
United States.....(b)			1	19						
Russia.....(a)										
Sea Fisheries.....(a)										
Sea Fisheries.....(b)	3	123								
Total.....	20	25,399	2	3,868	3	1,682				
Lower East Pubnico, N.S.—										
United States.....(a)	4	132	18	576						
Sea Fisheries.....(a)	5	205	36	1,985						
Sea Fisheries.....(b)	3	276								
Total.....	12	613	54	2,561						
Lunenburg, N.S.—										
British West Indies.....(b)	20	5,289								
Newfoundland.....(b)	14	1,430								
From Sea.....(a)	23	1,664								
From Sea.....(b)	3	315								
St. Pierre.....(a)	18	1,151								
United States.....(a)			1	319						
United States.....(b)	6	2,263	1	491						
Sea Fisheries.....(a)	89	5,481	4	195						
Sea Fisheries.....(b)	132	13,241								
Total.....	305	30,834	6	1,005						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Mahone Bay, N.S.—										
British West Indies.....(b)	2	265								
From Sea.....(a)	1	52								
Sea Fisheries.....(b)	3	297								
Total.....	6	614								
Maitland, N.S.—										
United States.....(b)	3	908	2	753						
Meteghan River, N.S.—										
Newfoundland.....(b)	1	54								
St. Pierre.....(b)	8	393								
United States.....(b)	3	1,367	4	480						
Total.....	12	1,814	4	480						
Moncton, N.B.—										
British West Indies.....(b)	1	238								
St. Pierre.....(b)					1	540				
United States.....(a)	1	1,442			1	429				
United States.....(b)	2	315	2	1,077						
Total.....	4	1,995	2	1,077	2	969				
Montague, P.E.I.—										
British West Indies.....(b)	15	762								
St. Pierre.....(b)	1	84								
Sea Fisheries.....(b)	1	10								
Total.....	17	856								
Montreal, Que.—										
Great Britain.....(a)	333	1,843,939	1	2,790	5	5,990	2	4,628	1	3,106
British West Indies.....(a)	57	169,014			10	15,623				
Newfoundland.....(a)	43	63,669			4	4,775				
Belgium.....(a)	32	156,170			1	778			1	3,151
Argentina.....(a)	11	34,676			1	2,772				
Cuba.....(a)					4	4,352	1	1,624		
Colombia.....(a)	9	52,603	15	87,032						
France.....(a)	25	179,642			9	27,669				
Germany.....(a)	18	130,482			13	38,701				
Netherlands.....(a)					13	41,045				
Italy.....(a)					1	2,396				
Norway.....(a)	5	15,488			2	5,589				
Denmark.....(a)					1	645				
Portuguese Africa.....(a)	1	4,042								
San Domingo.....(a)			1	2,389	1	1,298				
Peru.....(a)	10	60,510	2	10,250						
Gibraltar.....(a)	1	4,122								
French Africa.....(a)	1	3,205			1	1,958				
St. Pierre.....(a)					1	663				
Brazil.....(a)	3	10,251								
Spain.....(a)										
Portugal.....(a)	2	6,359								
Sweden.....(a)					1	3,356				
United States.....(a)	35	126,297	34	121,320	12	40,372				
Dutch East Indies.....(a)	1	3,222								
New Zealand.....(a)	7	23,234								
Australia.....(a)	11	39,773								
British West Africa.....(a)	14	48,290								
Dutch West Indies.....(a)	4	17,362								
Russia.....(a)	10	25,600								
Chile.....(a)	1	3,135								
Greece.....(a)										
Jugo-Slavia.....(a)										
Total.....	634	3,021,085	53	223,781	80	197,982	3	6,252	2	6,257

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 12.—RELEVÉ du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à l'entrée, etc.—*Suite*

Denmark Danemark		France France		Germany Allemagne		Netherlands Pays-Bas		Japan Japon		Other Nationalities Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vire	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
													2	265
													1	52
													3	297
													6	614
													5	1,661
													1	54
													8	393
													7	1,847
													16	2,294
													1	238
													1	540
													2	1,871
													4	1,392
													8	4,041
													15	762
													1	84
													1	10
													17	856
		3	5,356			14	30,315			Italy.....	5	15,676	365	1,914,580
11	15,672					1	857			Greece.....	1	2,780		
										Greece.....	1	2,646	80	203,812
						1	2,226			Italy.....	2	6,239	49	74,683
						1	2,254			Italy.....	1	3,500	36	165,825
1	1,960									Italy.....	1	3,177	15	45,379
										Finland.....	1	2,500		
						1	2,824			Poland.....	1	5,096	6	7,936
				20	85,986	1	2,180						25	144,731
						1	2,180						35	210,135
						2	6,108						52	257,349
2	5,146					1	2,824			Italy.....	1	5,976	16	53,129
4	9,572									Italy.....	21	76,851	28	97,559
													4	10,735
1	1,145												5	10,217
1	5,064												1	4,042
													3	4,832
										Peru.....	1	3,164	14	78,988
										Italy.....	1	4,122	1	4,122
													3	8,241
													1	663
										Italy.....	1	3,173	3	10,251
										Italy.....	2	5,944	1	3,173
3	7,478			1	1,217			2	8,454	Italy.....	8	27,321	4	12,303
													1	3,356
													95	332,459
													1	3,222
													7	23,234
													11	39,773
						1	2,999			Greece.....	3	7,879	17	56,169
										Mexico.....	1	3,237	6	23,598
													10	25,600
													1	3,135
						1	2,670			Greece.....	4	10,624	4	10,624
													1	2,670
23	46,037	3	5,356	21	87,203	24	55,257	2	8,454		56	188,861	901	3,846,525

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived Ports et ports secondaires et pays de départ	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter
	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré
Nanaimo, B.C.—										
Great Britain.....(a)	1	5,020								
United States.....(a)	36	6,339	104	91,959						
United States.....(b)	13	3,081	51	13,354						
Sea Fisheries.....(a)	1	33								
Total.....	51	14,473	155	105,313						
New Westminster, B.C.										
Great Britain.....(a)	33	107,685			1	2,864	1	2,366		
China.....(a)	6	21,549			1	2,519				
Italy.....(a)	1	3,024								
Japan.....(a)	20	64,182	2	10,226	1	4,121	1	2,353		
United States.....(a)	122	155,602	110	191,528	24	71,182	2	6,009	1	3,169
United States.....(b)	42	11,863	1	171						
Panama.....(a)	1	3,013								
Total.....	225	366,918	113	201,925	27	80,686	4	10,728	1	3,169
North Head, N.B.—										
British West Indies.....(b)	1	390								
United States.....(a)	318	34,436	159	1,960						
Total.....	319	34,826	159	1,960						
North Sydney, N.S.—										
Great Britain.....(a)	1	1,160								
Newfoundland.....(a)	227	239,433	1	224	46	27,876				
Newfoundland.....(b)	241	16,479	1	73						
France.....(a)										
St. Pierre.....(a)	7	5,869			2	2,886				
St. Pierre.....(b)	17	1,479								
Spain.....(a)					2	859				
Spain.....(b)	4	2,111								
United States.....(a)	14	16,612			2	1,344				
United States.....(b)	1	112	3	224						
British South Africa.....(a)	1	1,986								
Brazil.....(a)	1	3,277								
Sea Fisheries.....(a)	1	148								
Sea Fisheries.....(b)	84	4,586	4	180						
Total.....	569	293,252	9	701	52	32,965				
Ocean Falls, B.C.—										
United States.....(a)			52	93,162						
Sea Fisheries.....(a)	1	4								
Total.....	1	4	52	93,162						
Parrsboro, N.S.—										
United States.....(a)	8	2,582			45	23,547				
United States.....(b)	38	9,846	5	2,006						
Total.....	46	12,428	5	2,006	45	23,547				
Paspébiac, Que.—										
Newfoundland.....(a)					2	1,882				
United States.....(a)			2	2,246	13	14,514	2	1,815		
United States.....(b)			1	343						
Total.....			3	2,589	15	16,396	2	1,815		
Pictou, N.S.—										
Newfoundland.....(a)	1	223			2	1,752				
St. Pierre.....(a)	1	33			1	1,410				
United States.....(a)	2	2,443			1	696				
Total.....	4	2,699			4	3,858				

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—*Continued*

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Port Alberni, B.C.—										
China.....(a)	4	11,887								
Japan.....(a)	1	4,335								
United States.....(a)	2	4,476	12	34,815						
Mexico.....(a)	1	2,317								
Sea Fisheries.....(a)	3	66								
Total.....	11	23,081	12	34,815						
Port Alfred, Que.—										
Great Britain.....(a)	7	20,810			1	1,282				
British West Indies.....(a)							1	857		
Russia.....(a)	1	2,533								
United States.....(a)	13	26,298	4	4,740	4	7,496				
British Guiana.....(a)					3	5,057				
Greenland.....(a)					1	1,295				
Total.....	21	49,641	4	4,740	9	15,130	1	857		
Port Hawkesbury, N.S.—										
British West Indies.....(a)	2	128								
British West Indies.....(b)	7	517								
St. Pierre.....(a)	1	22								
St. Pierre.....(b)	3	204								
United States.....(a)	1	1,204			53	50,187	1	870		
Sea Fisheries.....(a)	21	2,907								
Sea Fisheries.....(b)	2	212	1	82						
Total.....	37	5,194	1	82	53	50,187	1	870		
Port La Tour, N.S.—										
Sea Fisheries.....(a)	2	28								
Port Williams, N.S.—										
United States.....(a)					5	4,153				
Powell River, B.C.—										
Norway.....(a)					1	2,501				
United States.....(a)	51	19,764	106	128,380						
Australia.....(a)	5	20,340								
New Zealand.....(a)	1	5,325								
Argentina.....(a)			3	10,780						
Total.....	57	45,429	109	139,160	1	2,501				
Prince Rupert, B.C.—										
United States.....(a)	136	137,687	137	25,416						
Sea Fisheries.....(a)	1,069	11,549	1,064	27,803						
Total.....	1,205	149,236	1,201	53,219						
Quatsino, B.C.—										
China.....(a)										
Japan.....(a)										
Chile.....(a)			1	4,730						
From Sea.....(a)	1	11	15	294						
United States.....(a)	16	16,252	30	20,715						
Total.....	17	16,263	46	25,739						
Quebec, Que.—										
Great Britain.....(a)	234	1,816,076			1	3,637				
British West Indies.....(a)	14	26,271			2	2,716	2	2,625		
Newfoundland.....(a)	63	57,923								
Newfoundland.....(b)	7	250								
Belgium.....(a)	25	139,497								
France.....(a)					6	18,912				

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived Ports et ports secondaires et pays de départ	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter
	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré
Quebec, Que.— <i>Con.</i>										
Germany.....(a)	8	83,814			3	9,162				
Netherlands.....(a)					9	28,480				
Italy.....(a)	3	9,008								
Spain.....(a)										
United States.....(a)	11	27,503	10	31,598	10	15,903	1	870		
Dutch West Indies.....(a)	3	12,898								
Argentina.....(a)	5	18,173			1	2,272				
Australia.....(a)	3	12,166								
French Africa.....(a)	1	3,777								
Poland.....(a)										
British Guiana.....(a)										
Total.....	377	2,207,356	10	31,598	32	81,082	3	3,495		
Richibucto, N.B.—										
St. Pierre.....(a)					1	744				
Rimouski, Que.—										
Great Britain.....(a)	3	3,887	1	1,184						
United States.....(a)			1	1,204						
Total.....	3	3,887	2	2,388						
Riverport, N.S.—										
British West Indies.....(a)	3	826								
From Sea.....(a)	8	471								
St. Pierre.....(a)	28	1,679								
United States.....(b)	1	396	1	475						
Sea Fisheries.....(a)	16	598								
Sea Fisheries.....(b)	39	4,012								
Total.....	95	7,982	1	475						
Sandy Point, N.S.—										
Newfoundland.....(a)			1	73						
Newfoundland.....(b)	1	99								
United States.....(a)	1	87	27	1,848						
United States.....(b)	1	376								
Sea Fisheries.....(a)			64	4,470						
Total.....	3	562	92	6,391						
Sheet Harbour, N.S.—										
Newfoundland.....(a)	1	894			5	4,951	1	870		
United States.....(a)					4	3,907				
Total.....	1	894			9	8,858	1	870		
Shelburne, N.S.—										
Newfoundland.....(b)	1	95								
St. Pierre.....(a)	1	58								
United States.....(a)	3	150	56	3,731						
United States.....(b)	1	557								
Sea Fisheries.....(a)			71	4,894						
Total.....	6	860	127	8,625						
Sherbrooke, N.S.—										
Newfoundland.....(a)					2	1,600	1	911		
United States.....(a)					33	26,096				
Total.....					35	27,696	1	911		
Shippegan, N.B.—										
Sea Fisheries.....(b)	27	341								

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Srea, etc.—Continued

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves-	Tons	Ves-	Tons	Ves-	Tons	Ves-	Tons	Ves-	Tons
	sels Na- vires	Regis- ter Tonnage enre- gistré	sels Na- vires	Regis- ter Tonnage enre- gistré	sels Na- vires	Regis- ter Tonnage enre- gistré	sels Na- vires	Regis- ter Tonnage enre- gistré	sels Na- vires	Regis- ter Tonnage enre- gistré
Sidney, B.C.—										
Great Britain.....(a)	1	296								
Chile.....(a)			4	48,493	1	2,829				
United States.....(a)	72	10,771	513	158,259	1	3,481				
United States.....(b)	11	1,804								
Total.....	84	12,871	517	206,752	2	6,310				
Sorel, Que.—										
Great Britain.....(a)	4	7,398								
Chile.....(a)	1	3,135								
Total.....	5	10,533								
Souris, P.E.I.—										
Newfoundland.....(b)	1	84								
St. Pierre.....(b)	1	98								
United States.....(a)					1	815				
United States.....(b)			1	87						
Sea Fisheries.....(b)	2	28								
Total.....	4	210	1	87	1	815				
Stewart, B.C.—										
United States.....(a)	12	4,852	7	2,733						
St. Andrews, N.B.										
United States.....(a)	900	41,497	556	9,116						
St. George, N.B.—										
United States.....(a)	4	14	40	1,102						
United States.....(b)	4	1,828								
Total.....	8	1,842	40	1,102						
St. John, N.B.—										
Great Britain.....(a)	85	454,198			4	4,498				
British West Indies.....(a)	39	141,820	2	3,324	45	51,345	2	1,714		
British West Indies.....(b)	1	939								
Newfoundland.....(a)					0	4,897				
Belgium.....(a)	13	80,488			6	18,560				
France.....(a)	3	18,070			2	6,304				
Germany.....(a)	7	54,882			4	12,073				
Netherlands.....(a)	2	5,745			4	12,054				
Italy.....(a)										
St. Pierre.....(a)					1	557				
United States.....(a)	145	87,767	240	176,463	29	33,393	5	6,013		
United States.....(b)	48	24,226	65	22,269						
Russia.....(a)	2	4,561								
Brazil.....(a)	1	3,329								
British South Africa.....(a)	1	4,220								
Argentina.....(a)	3	11,542								
Irish Free State.....(a)			1	2,920						
Honduras.....(a)										
Sea Fisheries.....(a)	1	7								
Total.....	351	891,794	308	204,976	104	143,681	7	7,727		
St. Peters, N.S.—										
Newfoundland.....(a)					5	4,371				
St. Pierre.....(a)					3	3,199				
Sea Fisheries.....(b)	2	34								
Total.....	2	34			8	7,570				
St. Stephen, N.B.—										
Great Britain.....(a)										
United States.....(a)	2	35	18	271						
United States.....(b)	4	1,186	3	1,619						
Total.....	6	1,221	21	1,890						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 12.—RELEVÉ du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à l'entrée, etc.—*Suite*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
1	2,747												1	296
													5	51,322
													587	175,258
													11	1,804
1	2,747													
													604	228,680
													4	7,398
													1	3,135
													5	10,533
													1	84
													1	98
													1	815
													1	87
													2	28
													6	1,112
													19	7,585
													1,456	50,613
													44	1,116
													4	1,828
													48	2,944
11	13,562			1	1,705					Spain.....	1	3,374	91	463,775
				1	813								100	212,578
													1	939
													9	4,897
				2	4,952					Italy.....	1	3,440	19	99,048
													6	27,614
										Italy.....	1	3,384	13	71,907
										Italy.....	4	13,570	7	21,183
8	11,753			1	5,785								4	13,570
													1	557
										Greece.....	1	2,360	431	323,808
										Peru.....	2	274		
													113	46,495
										Italy.....	1	3,173	1	7,734
													3	3,329
										Greece.....	1	3,120	2	7,340
										Greece.....	1	2,773	4	14,315
													1	2,920
										Honduras...	2	2,887	2	2,887
													1	7
19	25,315			5	13,255						15	38,355	809	1,325,103
													5	4,371
													3	3,199
													2	34
													10	7,604
				1	681								1	681
													20	306
													7	2,805
				1	681								28	3,792

NO. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—Continued

Ports and Outports and Countries whence Arrived Ports et ports secondaires et pays de départ	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Summerside, P.E.I.—										
United States.....(a)					1	1,892				
United States.....(b)	4	2,522								
Total.....	4	2,522			1	1,892				
Sydney, N.S.—										
Great Britain.....(a)	12	37,514			4	6,946				
British West Indies.....(a)	1	274								
Newfoundland.....(a)	38	99,312			113	296,457	1	905		
Newfoundland.....(b)	14	1,077								
France.....(a)	1	1,159								
France.....(b)	5	16,271								
Italy.....(a)					1	3,756				
Norway.....(a)										
San Domingo.....(a)							1	1,770		
British India.....(a)										
St. Pierre.....(a)	1	188			3	2,335				
Sweden.....(a)							1	1,552		
United States.....(a)	22	46,101	9	1,106	8	12,831				
Netherlands.....(a)	1	2,603			1	1,987				
Argentina.....(a)	3	9,074								
Egypt.....(a)	1	3,336								
Egypt.....(b)	2	4,577			1	2,176				
Russia.....(a)	1	3,191								
Jugo-Slavia.....(a)	5	17,560								
British South Africa.....(a)										
Sea Fisheries.....(a)										
Sea Fisheries.....(b)			32	1,090						
Total.....	107	242,237	41	2,196	131	326,488	3	4,227		
Three Rivers, Que.—										
Great Britain.....(a)	44	165,773			4	8,845				
United States.....(a)					1	2,514				
Netherlands.....(a)										
Russia.....(a)	1	2,897								
Total.....	45	168,670			5	11,359				
Union Bay, B.C.—										
Great Britain.....(a)	1	2,702								
British East Indies.....(a)	2	5,708								
China.....(a)	1	2,971								
Japan.....(a)	6	16,691								
United States.....(a)	17	14,833	21	2,258			1	2,729		
United States.....(b)	2	539	2	565						
Russia.....(a)	3	7,995								
British Oceania.....(a)	2	6,331								
Total.....	34	57,770	23	2,823			1	2,729		
Vancouver, B.C.—										
Great Britain.....(a)	55	213,888	1	3,942					1	3,988
British West Indies.....(a)	1	1,249	1	2,030						
Costa Rica.....(a)	1	3,040								
Belgium.....(a)	6	22,004			24	89,144				
Argentina.....(a)			4	14,465	9	24,081				
China.....(a)	21	71,928	13	57,996	3	9,509			2	7,232
Colombia.....(a)	2	10,288								
Cuba.....(a)	4	9,185			2	5,955				
France.....(a)										
Germany.....(a)										
Netherlands.....(a)	16	87,262								
Denmark.....(a)										
Italy.....(a)	1	3,024								
Norway.....(a)					7	24,578				
Japan.....(a)	75	361,060			1	2,939	2	6,008	2	7,476
Peru.....(a)	4	17,259	2	7,345	5	13,437				
Fiji Islands.....(a)	6	21,734								
Mexico.....(a)	6	1,332								
Gibraltar.....(a)	1	3,013								
Spain.....(a)	1	3,030	2	10,924						
French Africa.....(a)	1	3,189								
Sweden.....(a)							10	29,958		

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 12.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Inwards from Sea, etc.—*Concluded*

Ports and Outports and Countries whence Arrived — Ports et ports secondaires et pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
United States.....(a)	1,065	1,640,464	548	955,268	19	57,317	14	43,206		
United States.....(b)			3	9,045						
Philippines.....(a)	1	2,750	5	21,597						
Russia.....(a)	1	2,884								
Hong Kong.....(a)	18	120,638	1	3,729						
Chile.....(a)			1	3,465						
Hawaii.....(a)	3	10,442					3	9,711	1	3,607
Brazil.....(a)	1	3,088	1	3,547						
Siam.....(a)					1	4,283				
British Straits Settlements.....(a)	1	2,724			1	2,794				
Guatemala.....(a)					1	4,493				
Australia.....(a)	31	178,260			4	11,058				
Sea Fisheries.....(a)	142	2,442	2	34						
New Zealand.....(a)	7	23,296	3	10,620						
Total.....	1,471	2,819,473	587	1,104,007	77	249,588	29	88,883	6	22,303
Victoria, B.C.—										
Great Britain.....(a)	38	145,569								
British West Indies.....(a)	1	1,249								
Australia.....(a)	8	69,225								
Belgium.....(a)	1	5,045								
China.....(a)	16	112,065	7	58,808	1	2,490				
New Zealand.....(a)	7	52,774								
Netherlands.....(a)	10	53,462			1	5,341				
Japan.....(a)	23	190,181	19	159,393						
From Sea.....(a)	21	410	18	2,758						
Brazil.....(a)			1	3,516						
United States.....(a)	774	1,040,029	1,097	1,676,783	1	2,327				
United States.....(b)	129	28,252	16	6,959						
Total.....	1,028	1,698,261	1,158	1,908,217	3	10,158				
Westport, N.S.—										
United States.....(a)	5	162	25	309						
United States.....(b)	1	212	1	266						
Total.....	6	374	26	575						
Weymouth, N.S.—										
St. Pierre.....(a)					1	914				
United States.....(a)					1	498				
United States.....(b)	19	3,764	3	313						
Total.....	19	3,764	3	313	2	1,412				
White Rock, B.C.—										
United States.....(a)	7	277	2	20						
Windsor, N.S.—										
Newfoundland.....(a)	2	4,040								
Belgium.....(a)					1	726				
Germany.....(a)										
United States.....(a)	93	182,502			31	26,685				
United States.....(b)	13	3,080	17	11,997						
Total.....	108	189,622	17	11,997	32	27,411				
Winnipeg, Man.—										
Newfoundland.....(a)	1	1,115								
Wolfville, N.S.—										
United States.....(b)	4	842	2	396						
Yarmouth, N.S.—										
British West Indies.....(a)	1	298			1	883				
British West Indies.....(b)	1	643	1	790						
St. Pierre.....(b)	44	2,789								
United States.....(a)	31	28,892	146	389,795	2	1,866				
United States.....(b)	23	4,467	64	2,591						
Sea Fisheries.....(b)	30	1,656	48	2,536						
Total.....	130	38,745	259	395,712	3	2,749				

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 13.—SUMMARY STATEMENT of the Nationality of Sea-going Vessels entered
Inwards from Sea from each Country

No.	Countries from which arrived — Pays de départ	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
		Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
1	Great Britain.....	978	5,619,012	6	19,574	41	64,658	4	8,762	2	7,094
2	Australia.....	58	319,764			4	11,058				
3	British South Africa.....	7	23,766								
4	British West Africa.....	14	48,290								
5	British Guiana.....					3	5,057				
6	British East Indies.....	2	5,708								
7	British India.....	24	86,068					1	1,770		
8	British West Indies.....	253	572,781	4	6,144	77	90,210	18	18,478		
9	British Oceania.....	2	6,331								
10	British Straits Settlements.....	1	2,724			1	2,794				
11	Fiji Islands.....	6	21,734								
12	Gibraltar.....	2	7,135								
13	Hong Kong.....	18	120,638	1	3,729						
14	Irish Free State.....			1	2,920						
15	Newfoundland.....	874	707,463	6	1,335	217	369,157	3	2,686		
16	New Zealand.....	47	213,879	3	10,620						
17	Argentina.....	30	99,052	7	25,245	11	29,125				
18	Belgium.....	102	631,287	1	3,445	40	134,515			2	5,760
19	Brazil.....	8	23,550	2	7,063						
20	Chile.....	2	6,270	6	56,688		2,829				
21	China.....	49	223,542	20	116,804	5	14,518			2	7,232
22	Colombia.....	22	115,864	17	98,909						
23	Costa Rica.....	1	3,040								
24	Cuba.....	5	11,097			7	11,279	3	3,664		
25	Denmark.....					1	645				
26	Dutch East Indies.....	1	3,222								
27	Dutch West Indies.....	7	30,260								
28	Egypt.....	1	3,336								
29	France.....	30	202,026			17	52,885				
30	French Africa.....	3	10,171			1	1,958				
31	Germany.....	33	269,178			20	59,936				
32	Greece.....										
33	Greenland.....					1	1,295				
34	Guatemala.....			1		1	4,493				
35	Hawaii.....	3	10,442					3	9,711	1	3,607
36	Honduras.....										
37	Italy.....	16	50,999			1	2,396				
38	Japan.....	125	636,449	21	169,619	2	7,060	3	8,361	2	7,476
39	Jugo-Slavia.....	1	3,191								
40	Mexico.....	7	3,649								
41	Netherlands.....	29	149,072			28	88,907				
42	Norway.....					31	179,166				
43	Panama.....	1	3,013								
44	Peru.....	28	143,763	4	17,595	6	18,654				
45	Philippines.....	1	2,750	5	21,597						
46	Poland.....										
47	Portugal.....	2	6,359								
48	Portuguese Africa.....	1	4,042								
49	Russia.....	21	53,052			1	2,176				
50	San Domingo.....	1	49	3	9,817	1	1,298				
51	Siam.....					1	4,283				
52	Spain.....	8	9,668	2	10,924	2	859				
53	St. Pierre.....	229	27,074	3	994	21	18,292				
54	Sweden.....					1	3,356	39	291,299		
55	United States.....	6,208	4,889,264	5,792	4,523,639	389	516,088	41	165,925	1	3,169
56	Venezuela.....	4	22,845								
57	From Sea.....	117	42,275	34	3,932						
58	Sea Fisheries.....	2,402	109,605	1,539	49,902						
	Total.....	11,784	15,554,749	7,477	5,160,495	932	1,698,947	115	510,656	10	34,338

N° 13.—ÉTAT SOMMAIRE de la nationalité des long-courriers de chaque pays, déclarés à l'entrée

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total		No.
Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	
10	21,468	7	11,805	7	6,576	17	40,018			Finland Greece Italy Spain	1 1 5 1	1,348 2,780 15,676 3,374	1,080	5,822,145	1
2	5,778									Greece	1	3,120	64	336,600	2
5	6,529									Greece	3	7,879	17	26,886	3
													8	56,169	4
													8	11,586	5
													2	5,708	6
36	47,310	5	280	2	1,626	1	857			Greece	1	2,646	25	87,838	7
						1	5,313						397	740,332	8
													2	6,331	9
													3	10,831	10
													6	21,734	11
								4	18,146				2	7,135	12
2	2,493			4	4,614								23	142,513	13
										Italy Spain	2 1	6,239 499	1,109	2,920 1,094,486	14 15
						1	2,254			Finland Greece Italy	1 1 1	2,500 2,773 3,177	50	224,499	16
				1	2,737	16	72,010			Italy	2	9,476	52	164,126	17
8	26,104			1	2,958			17	83,906				164	859,230	18
1	1,960									Poland	1	5,096	10	30,613	19
68	358,034												9	65,787	20
						1	2,999						102	475,064	21
													40	219,869	22
													1	3,040	23
													16	28,000	24
													69	358,679	25
													1	3,222	26
		38	157,888			1	2,824			Mexico	2	6,474	10	39,733	27
										Italy	1	3,440	1	3,336	28
1	5,222			121	656,034	1	2,180			Italy	1	3,078	87	419,063	29
													5	15,207	30
										Greece	4	10,624	176	992,550	31
													4	10,624	32
													1	1,295	33
													1	4,493	34
													7	23,760	35
				1	1,128	1	2,824			Honduras	2	2,887	2	2,887	36
										Italy	44	172,043	63	229,390	37
9	29,956			2	7,006			212	923,689	China	11	41,464			
						1	2,670			Greece	2	6,874	390	1,841,195	38
										Italy	1	3,241			
						51	348,629						2	5,861	39
										Mexico	1	69	8	3,718	40
2	5,146					4	19,267			Greece	1	3,042	111	599,010	41
										Italy	2	9,360			
1	5,064												37	203,579	42
										Poland	1	5,002	1	3,013	43
										Peru	1	3,164	41	193,242	44
1	3,920												6	24,347	45
													1	3,920	46
				1	1,526					Italy	2	5,944	4	12,303	47
2	2,290												1	4,042	48
										Italy	2	6,121	25	62,875	49
1	1,324												7	13,454	50
													1	4,283	51
1	1,318	17	4,999	1	1,091					Italy Spain	2 2	7,239 1,229	17	31,243	52
													272	53,768	53
													40	294,655	54
										China	3	13,645			
										Finland	1	3,314			
46	130,129	4	21,378	10	44,243	3	12,115	125	559,692	Greece	2	3,182	12,643	12,939,078	55
										Italy	14	47,121			
										Nicaragua	1	249			
										Panama	1	5,651			
										Peru	2	274			
		15	14,956										4	22,845	56
	222		56,341										166	61,163	57
										Spain	25	14,643	4,188	230,491	58
96	654,045	308	267,647	151	729,539	99	513,960	358	1,585,433		153	445,957	21,583	27,155,766	

TRADE WITH EACH COUNTRY AND NATIONALITY OF VESSELS

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards *for Sea* at each of the undermentioned Ports and Outports in Canada, distinguishing the Nationality of the Vessels employed in the trade with each country.

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Alert Bay, B.C.—										
United States.....(a)	7	3,532	44	707						
Sea Fisheries.....(a)	15	221	33	838						
Total.....	22	3,753	77	1,545						
Amherst, N.S.—										
Great Britain.....(a)					8	8,319				
Newfoundland.....(a)					2	926				
Newfoundland.....(b)	5	483								
St. Pierre.....(a)					1	498				
United States.....(a)										
United States.....(b)	1	294	1	790						
Total.....	6	777	1	790	11	9,743				
Annapolis Royal, N.S.—										
United States.....(b)	9	853								
Anyox, B.C.—										
United States.....(a)	27	35,919	10	3,404						
Sea Fisheries.....(a)	3	21								
Total.....	30	35,940	10	3,404						
Arichat, N.S.—										
Sea Fisheries.....(b)	10	148	10	233						
Baddeck, N.S.—										
Great Britain.....(a)	1	791								
Newfoundland.....(a)	1	497								
St. Pierre.....(b)	2	188								
United States.....(a)					13	18,048				
Sea Fisheries.....(b)	5	464								
Total.....	9	1,940			13	18,048				
Bamfield, B.C.—										
For Sea.....(a)	13	290	1	4						
United States.....(a)	20	1,238	1	1,440						
Total.....	33	1,528	2	1,444						
Barrington Passage, N.S.—										
St. Pierre.....(a)	1	57								
United States.....(a)			2	40						
Sea Fisheries.....(a)	8	122	4	268						
Total.....	9	179	6	308						
Bathurst, N.B.—										
United States.....(a)					1	660				
United States.....(b)	3	1,245								
Sea Fisheries.....(b)	57	891								
Total.....	60	2,136			1	660				
Bear River, N.S.—										
United States.....(a)	15	30,850	1	4						
United States.....(b)	1	294								
Total.....	16	31,144	1	4						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur déclarés à la sortie à chacun des ports ou ports secondaires sous-mentionnés du Canada ainsi que de la nationalité des long-courriers employés dans le commerce avec chaque pays.

[illegible]

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed Ports et ports secondaires et pays de destination	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Blubber Bay, B.C.—					1	2,829				
Peru.....(a)										
United States.....(a)	145	47,836	1	1,440						
Total.....	145	47,836	1	1,440	1	2,829				
Bonne Esperance, Que.—										
Newfoundland.....(a)	22	6,805								
Newfoundland.....(b)	11	719								
Total.....	33	7,524								
Bridgewater, N.S.—										
British West Indies.....(b)	6	1,796			1	1,403				
Newfoundland.....(a)										
Newfoundland.....(b)	1	95								
United States.....(a)					9	10,701				
United States.....(b)	4	1,987	2	800						
Total.....	11	3,878	2	800	10	12,104				
Britannia Beach, B.C.—					1	2,723				
Great Britain.....(a)										
Japan.....(a)	69	66,595	32	63,853						
United States.....(a)										
Total.....	69	66,595	32	63,853	1	2,723				
Butedale, B.C.—										
Sea Fisheries.....(a)	35	647	81	2,110						
Campbellton, N.B.—					3	2,547				
Great Britain.....(a)	4	7,400								
Great Britain.....(b)					1	931				
United States.....(a)	3	3,450								
United States.....(b)	1	376								
Total.....	8	11,226			4	3,478				
Campobello, N.B.—										
United States.....(a)	419	41,856	466	12,130						
Canso, N.S.—										
Newfoundland.....(a)	1	25								
For Sea.....(a)			1	880						
St. Pierre.....(a)	3	89			4	2,845				
United States.....(a)										
Sea Fisheries.....(a)	4	433	30	850						
Sea Fisheries.....(b)	26	2,546								
Total.....	34	3,093	31	1,730	4	2,845				
Caracquet, N.B.—										
Sea Fisheries.....(b)	108	1,948								
Charlottetown, P.E.I.—										
Newfoundland.....(a)	18	26,796			9	5,265				
Newfoundland.....(b)	4	309								
Cuba.....(a)	1	775	1	1,350	4	4,265				
St. Pierre.....(b)	3	169								
United States.....(a)	1	452			13	19,291				
Total.....	27	28,501	1	1,350	26	28,821				

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—*Continued*

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves-	Tons	Ves-	Tons	Ves-	Tons	Ves-	Tons	Ves-	Tons
	sels — Na- vires	Regis- ter — Tonnage enre- gistré	sels — Na- vires	Regis- ter — Tonnage enre- gistré	sels — Na- vires	Regis- ter — Tonnage enre- gistré	sels — Na- vires	Regis- ter — Tonnage enre- gistré	sels — Na- vires	Regis- ter — Tonnage enre- gistré
Chatham, N.B.—										
Great Britain..... (a)	3	7,027								
United States..... (a)	4	5,568	1	805	1	1,679				
United States..... (b)	1	274		509						
Total.....	8	12,869	2	1,314	1	1,679				
Chemainus, B.C.—										
Great Britain..... (a)	5	14,320			1	2,939				
British West Indies..... (a)	3	7,165			2	5,846				
China..... (a)	1	1,249								
Cuba..... (a)										
Japan..... (a)					1	2,501				
United States..... (a)	177	71,818	78	72,040	5	14,375	4	9,438		
United States..... (b)	117	61,649	32	49,824						
British Oceania..... (a)	8	25,227	3	5,528	2	5,728				
Total.....	311	181,428	113	127,392	11	31,389	4	9,438		
Chester, N.S.—										
United States..... (a)			1		15					
Sea Fisheries..... (a)	27	418								
Total.....	27	418	1		15					
Clark's Harbour, N.S.—										
United States..... (a)			22		137					
Sea Fisheries..... (a)	11	165								
Total.....	11	165	22		137					
Clementsport, N.S.—										
United States..... (b)	5	491								
Dalhousie, N.B.—										
United States..... (b)	3	1,176								
Digby, N.S.—										
United States..... (a)	22	1,043	14	813						
Englewood, B.C.—										
United States..... (a)	27	6,935	17	64,928						
Freeport, N.S.—										
United States..... (a)	4	196	16	256						
Gaspé, Que.—										
Great Britain..... (a)	13	26,377								
British West Indies..... (b)	2	646								
St. Pierre..... (a)										
St. Pierre..... (b)	4	381								
United States..... (a)	1	4,414	1	689						
United States..... (b)	5	2,481								
Total.....	25	34,299	1	689						
Guysboro, N.S.—										
United States..... (a)					1	1,386				

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Halifax, N.S.—										
Great Britain.....(a)	184	946,597	1	4,013	10	10,816	1	911		
British West Indies.....(a)	40	98,305			12	11,664	13	13,260		
British West Indies.....(b)	1	376								
Newfoundland.....(a)	163	147,001			23	14,023				
Newfoundland.....(b)	21	2,165	1	152						
Belgium.....(a)	1	2,415			1	3,054				
Belgium.....(b)	1	2,415			8	11,195	1	857		
British Guiana.....(a)	55	181,758								
British Guiana.....(b)	1	299								
Cuba.....(a)	2	2,732			1	3,246				
France.....(a)					1	2,391				
Germany.....(a)	1	3,012	4	14,086						
Netherlands.....(a)					1					
Italy.....(a)			1	3,179						
Norway.....(a)					2	10,101				
Peru.....(a)	13	60,685								
For Sea.....(a)	39	46,370								
St. Pierre.....(a)	57	32,227			1	557				
St. Pierre.....(b)	2	212								
Spain.....(a)							11	94,201		
Sweden.....(a)							31	265,050	1	2,609
United States.....(a)	215	1,105,298	45	95,174	50	180,385				
United States.....(b)	13	4,311	2	228						
Brazil.....(a)	7	24,826								
Australia.....(a)	8	30,730								
New Zealand.....(a)	7	25,500								
Denmark.....(a)										
British Honduras.....(a)	5	16,524								
Colombia.....(a)	17	88,109								
Venezuela.....(a)	4	12,755			1	5,217				
Mexico.....(a)	1	3,586								
French West Indies.....(a)	1	397								
Sea Fisheries.....(a)	404	47,165	8	293						
Sea Fisheries.....(b)	11	887								
Total.....	1,273	2,884,242	62	117,125	114	256,623	57	374,279	1	2,609
Hantsport, N.S.—										
United States.....(a)	1	840			4	3,526				
Hillsboro, N.B.—										
United States.....(a)					13	10,414				
United States.....(b)	1	387	2	798						
Total.....	1	387	2	798	13	10,414				
Isaacs Harbour, N.S.—										
United States.....(a)	1	92	8	122						
Sea Fisheries.....(a)	6	71	16	210						
Total.....	7	163	24	332						
Kildonan, B.C.—										
China.....(a)	1	6,791								
Japan.....(a)	1	2,823								
United States.....(a)	10	8,916	4	774						
Sea Fisheries.....(a)	42	865	425	8,803						
Total.....	54	19,395	429	9,577						
Ladysmith, B.C.—										
Japan.....(a)										
United States.....(a)	44	3,254	31	16,853						
United States.....(b)	53	13,196	18	4,726						
Total.....	97	16,450	49	21,579						

(a) Steam—Vapeurs.

(b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à la sortie, etc.—*Suite*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
1	1,690	2	11,128 224	1	7,904								199	981,369
		3	171	1	813	1	49 1,134						70	125,143
													2	425
15	17,980												191	163,142
													22	2,317
													2	5,469
				6	29,910								79	211,790
													1	299
				3	22,201								12	36,616
						1	4,892			Italy	1	5,976	1	3,246
3	18,034									Italy	1	2,360	1	4,892
													2	5,539
		14	15,388										5	28,135
													13	60,685
													53	61,758
													58	32,784
													2	212
57	311,720	15	78,013	41	287,505	20	195,360			Spain	2	4,392	2	4,392
													11	94,201
													475	2,521,114
													15	4,539
													7	24,826
7	42,925												8	30,730
													7	25,500
													7	42,925
													5	16,524
				1	5,002								17	88,109
													6	22,974
		52	18,648										1	3,586
													1	397
83	392,349	90	123,572	53	353,335	23	201,435						464	66,106
													11	887
											4	12,728	1,760	4,718,297
													5	4,366
													13	10,414
													3	1,185
													16	11,599
													9	214
													22	281
													31	495
								2	7,704					
										Japan	2	8,395	3	14,495
													3	11,218
													14	9,690
													467	9,668
								4	16,099		2	8,395	487	45,071
								1	4,042				1	4,042
													75	20,107
													71	17,922
								1	4,042				147	42,071

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—*Continued*

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
La Have, N.S.—										
British West Indies.....(b)	8	2,239								
Sea Fisheries.....(a)	15	933								
Sea Fisheries.....(b)	15	1,628								
Total.....	38	4,800								
Lévis, Que.—										
Colombia.....(a)	1	4,414								
Liverpool, N.S.—										
Great Britain.....(a)	3	188								
British West Indies.....(a)	2	762								
British West Indies.....(b)	17	1,025								
Newfoundland.....(a)	9	444								
St. Pierre.....(a)	6	14,663	5	187	2	2,080				
United States.....(a)	1	821	1	758						
United States.....(b)	1	821	1	758						
Sea Fisheries.....(a)	39	1,607	47	2,877						
Total.....	77	19,510	53	3,822	2	2,080				
Lockeport, N.S.—										
United States.....(b)			15	485						
Sea Fisheries.....(b)	25	954								
Total.....	25	954	15	485						
Lord's Cove, N.B.—										
United States.....(a)	628	10,814	166	1,809						
Louisburg, N.S.—										
Great Britain.....(a)	1	3,329								
British West Indies.....(a)	2	2,724			3	3,324				
Newfoundland.....(a)	7	740								
Newfoundland.....(b)	1				1	3,435				
Belgium.....(a)	1	4,511								
China.....(a)					1	3,250				
France.....(a)					1	3,184				
Netherlands.....(a)										
Italy.....(a)	5	15,002	1	3,849						
Japan.....(a)	2	117								
St. Pierre.....(b)					1	681				
Sweden.....(a)	3	6,711	1	16						
United States.....(a)	1	87	1	67						
United States.....(b)	3	10,040								
New Zealand.....(a)	3	608								
Sea Fisheries.....(a)	3	118	56	1,072						
Sea Fisheries.....(b)	3									
Total.....	31	43,985	59	5,004	7	13,874				
Lower East Pubnico, N.S.—										
United States.....(a)	1	31	18	600						
Sea Fisheries.....(a)	5	205	36	1,985						
Sea Fisheries.....(b)	2	184								
Total.....	8	420	54	2,585						
Lunenburg, N.S.—										
British West Indies.....(a)	6	412								
British West Indies.....(b)	7	2,420								
British West Indies.....(c)	19	1,133								
Newfoundland.....(a)	10	1,157								
Newfoundland.....(b)	42	3,011								
St. Pierre.....(a)	1	87								
St. Pierre.....(b)	2	24	2	451						
United States.....(a)	6	2,163								
United States.....(b)	10	1,374								
Porto Rico.....(a)	116	6,445	3	116						
Sea Fisheries.....(a)	136	13,546	1	79						
Sea Fisheries.....(b)										
Total.....	355	31,772	6	646						

(a) Steam—Vapeurs.

(b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à la sortie, etc.—*Suite*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
													8	2,239
													15	933
													15	1,628
													38	4,800
													1	4,414
1	727												1	727
													3	188
													2	762
													17	1,025
				1	1,091								9	444
													14	18,021
													2	1,579
													86	4,484
1	727			1	1,091									
													134	27,230
													15	485
													25	954
													40	1,439
													794	12,623
										Finland....	1	1,348	1	3,329
													1	1,348
													5	6,048
													7	740
													1	3,435
													1	4,511
													1	3,250
													1	3,184
													5	15,002
													1	3,849
													2	117
				1	813								1	681
													5	7,540
		13	4,361										2	154
													3	10,040
													16	4,967
		13	4,361	1	813								59	1,190
											1	1,348	112	69,385
													19	631
													41	2,190
													2	184
													62	3,005
													6	412
													7	2,420
													19	1,133
													10	1,157
													42	3,011
													1	87
													4	475
													6	2,163
													10	1,374
													119	6,561
													137	13,625
													361	32,418

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter
	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré
Mahone Bay, N.S.— St. Pierre..... (a)	2	104								
Maitland, N.S.— United States..... (b)	5	1,232	2	753						
Meteghan River, N.S.— British West Indies..... (b)	1	248								
United States..... (b)	1	100	5	62						
Total.....	2	348	5	62						
Moncton, N.B.— Great Britain..... (a)	1	1,442			3	2,475				
United States..... (a)					1	429				
United States..... (b)	4	613	2	599						
Total.....	5	2,055	2	599	4	2,904				
Montague, P.E.I.— Newfoundland..... (b)	22	1,357								
St. Pierre..... (b)	4	325								
Total.....	26	1,682								
Montreal, Que.— Great Britain..... (a)	310	1,928,382			2	2,077			1	3,106
British West Indies..... (a)	47	138,576			5	7,745	1	857		
Newfoundland..... (a)	60	92,186			10	9,021				
Belgium..... (a)	26	72,992			7	14,434			1	3,151
Colombia..... (a)	7	34,746	3	17,459	1	1,637				
Cuba..... (a)	2	5,294								
France..... (a)	26	195,179			6	19,242				
Germany..... (a)	3	7,718			15	41,700				
Netherlands..... (a)	19	56,566			14	41,321				
Italy..... (a)	10	28,731					2	5,604		
Norway..... (a)					10	26,685				
Denmark..... (a)										
Peru..... (a)	7	40,717								
Venezuela..... (a)	2	10,294			2	5,046				
Argentina..... (a)	1	3,222								
Greece..... (a)	3	6,211			3	5,860				
St. Pierre..... (a)	2	1,548			7	6,069				
Turkey..... (a)	1	2,307								
Spain..... (a)	2	6,005								
Poland..... (a)	1	1,783								
Sweden..... (a)										
United States..... (a)	55	202,340	50	194,566	10	40,147				
United States..... (b)			2	1,050						
New Zealand..... (a)	8	26,536								
British South Africa..... (a)	14	55,914			1	4,397				
Dutch West Indies..... (a)										
Brazil..... (a)	7	25,202								
Irish Free State..... (a)	5	15,950								
Mexico..... (a)			1	3,046						
Porto Rico..... (a)										
Australia..... (a)	13	45,242								
Total.....	631	3,003,641	56	216,121	93	225,381	3	6,461	2	6,257
Nansimo, B.C.— Great Britain..... (a)	4	14,417								
China..... (a)	1	2,971								
Japan..... (a)	1	5,442	1	3,571	1	2,501				
United States..... (a)	156	74,802	113	104,357	2	6,369	1	2,729		
United States..... (b)	41	9,599	51	13,297						
Mexico..... (a)	1	1,464								
British Oceania..... (a)	1	2,803								
Sea Fisheries..... (a)			1	26						
Total.....	205	111,498	166	121,251	3	8,870	1	2,729		

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à la sortie, etc.—*Suite*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
													2	104
													7	1,985
													1	248
													6	162
													7	410
													4	3,917
													1	429
													6	1,212
													11	5,558
													22	1,357
													4	325
													26	1,682
		2	3,571							Italy.....	1	3,512	317	1,942,807
9	11,330									Spain.....	1	2,159	62	158,508
2	3,170												72	104,377
						6	14,130	1	4,254	Italy.....	3	13,218	44	122,179
1	5,064									Poland.....	1	5,096	13	64,002
		2	4,240			2	4,793			Italy.....	2	7,392	4	12,686
				18	78,288	2	4,406			Italy.....	1	3,301	37	226,755
		1	1,776			8	18,735			Italy.....	1	2,730	39	134,842
		1	1,795			3	6,149	2	8,454	Italy.....	3	10,113	45	128,511
										Greece.....	30	99,749	51	158,234
5	7,588										3	7,752	10	26,685
													5	7,588
													7	40,717
													2	10,294
													3	8,268
										Italy.....	2	6,746	12	29,711
										Greece.....	4	10,894	9	7,617
													1	2,307
1	1,849			1	1,217					Italy.....	2	5,882	4	11,887
													2	3,000
1	1,690			2	5,698	4	10,571			Finland.....	1	2,500	2	4,349
										Greece.....	2	5,283		
										Peru.....	1	3,164	127	470,398
										Italy.....	2	6,939		
													2	1,050
													8	26,536
													14	55,914
													1	4,397
													7	25,202
													5	15,950
										Mexico.....	1	3,237	1	3,237
													1	3,046
19	30,691	6	11,382	21	85,203	25	58,784	3	12,708				13	45,242
											61	199,667	920	3,856,296
													4	14,417
		1	3,240					11	45,248				1	2,971
													14	56,762
													273	191,497
													92	22,896
													1	1,464
													1	2,803
		1	3,240										1	26
								11	45,248				387	292,836

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Newcastle, N.B.—										
Great Britain.....(a)	1	1,697	2	1,158						
United States.....(b)										
Total.....	1	1,697	2	1,158						
New Westminster, B.C.—										
Great Britain.....(a)	49	173,487	10	37,370	11	33,544	3	8,375		
Belgium.....(a)	1	504			1	2,724			1	3,169
China.....(a)		587	1	4,774						
France.....(a)	1	3,530	1	5,442	2	5,446				
Japan.....(a)					1	2,864				
United States.....(a)	111	168,125	101	154,354	10	30,931	1	2,353		
United States.....(b)	46	12,752								
Argentina.....(a)					1	2,483				
Total.....	209	358,985	113	201,940	26	77,992	4	10,728	1	3,169
North Head, N.B.—										
United States.....(a)	308	33,301	154	1,911						
North Sydney, N.S.—										
Great Britain.....(a)					3	2,700				
Newfoundland.....(a)	197	223,368	3	225	46	28,487	1	1,770		
Newfoundland.....(b)	249	16,744								
Belgium.....(a)	1	1,904								
France.....(a)										
Netherlands.....(a)										
Italy.....(a)										
St. Pierre.....(a)	29	18,264			3	1,632				
St. Pierre.....(b)	11	840								
Spain.....(a)		281								
Spain.....(b)	1									
United States.....(a)	6	8,819	1							
United States.....(b)	1	112		85						
Greece.....(a)	2	3,838			2	4,543				
Sea Fisheries.....(a)	8	1,184								
Sea Fisheries.....(b)	94	5,252	5	253						
Total.....	599	280,606	9	563	54	37,362	1	1,770		
Ocean Falls, B.C.—										
United States.....(a)	1	827	52	95,174						
Australia.....(a)	15	61,161								
Sea Fisheries.....(a)	1	4								
Total.....	17	61,992	52	95,174						
Parrsboro, N.S.—										
Great Britain.....(a)	2	3,257			3	4,199				
United States.....(a)	4	640			41	18,919				
United States.....(b)	53	17,858	9	3,549						
Total.....	59	21,755	9	3,549	44	23,118				
Paspébiac, Que.—										
Newfoundland.....(a)					1	993	2	1,815		
United States.....(a)	3	3,571	1	1,440	9	8,902				
Total.....	3	3,571	1	1,440	10	9,895	2	1,815		
Pictou, N.S.—										
Great Britain.....(a)	2	3,097			5	5,009				
Great Britain.....(b)	1	697								
Newfoundland.....(a)	4	892								
St. Pierre.....(a)	1	30								
United States.....(a)	1	894	1	536						
United States.....(b)	1	376								
Total.....	10	5,986	1	536	5	5,009				

(a) Steam—Vapeurs.

(b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à la sortie, etc.—*Suite*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
													1	1,697
													2	1,158
													3	2,855
4	13,022									Italy.....	1	3,241	79	272,476
1	2,694									Greece.....	1	3,437	3	6,397
		1	4,678										2	7,468
3	11,200			1	2,959			40	155,216				4	10,711
								4	15,280				43	167,052
													231	385,202
													46	12,752
8	26,916	1	4,678	1	2,959								1	2,483
								44	170,496		2	6,678	409	864,541
													462	35,212
				1	813					Italy.....	2	6,894	5	9,594
1	2,786												248	254,663
1	1,872	2	676										249	16,744
				1	1,623								2	4,690
		5	1,349										2	676
										Italy.....	1	3,121	1	1,872
										Greece.....	1	2,605	3	7,349
													37	21,245
										Spain.....	3	2,037	11	840
													3	2,037
													1	281
		114	34,955										6	8,819
													2	197
										Spain.....	23	12,797	4	8,381
2	4,658	121	36,980	2	2,436								145	48,936
													99	5,505
											30	27,454	818	391,829
													53	96,001
													15	61,161
													1	4
													69	157,166
1	1,152													
													6	8,608
													45	19,559
1	1,152												62	21,407
													113	49,574
													3	2,808
													13	13,913
													16	16,721
		1	534	1	943					Spain.....	1	2,183	10	11,766
													1	697
													4	892
													1	30
													2	1,430
													1	376
		1	534	1	943						1	2,183	19	15,191

CUSTOMS—SHIPPING REPORT

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Pointe-au-Pic, Que.—										
Great Britain.....	(a)				1	895				
United States.....	(a)				1	934				
Total.....					2	1,829				
Port Alberni, B.C.—										
China.....	(a)									
Japan.....	(a)	2	9,762	4	16,552					
United States.....	(a)	15	42,876	24	68,956	1	2,519			
British Oceania.....	(a)	1	3,012							
Sea Fisheries.....	(a)	1	27							
Total.....		19	55,677	28	85,508	1	2,519			
Port Alfred, Que.—										
Great Britain.....	(a)	11	33,715			3	3,448			
Germany.....	(a)				1	1,348				
Japan.....	(a)	1	3,333					1	1,768	
United States.....	(a)	1	2,533							
Total.....		13	39,581			4	4,796	1	1,768	
Port Clyde, N.S.—										
Sea Fisheries.....	(a)			2	53					
Port Hawkesbury, N.S.—										
Newfoundland.....	(a)	1	223							
Newfoundland.....	(b)	1	67							
St. Pierre.....	(a)	1	22							
St. Pierre.....	(b)	1	53							
United States.....	(a)	2	1,293			58	54,279	1	870	
United States.....	(b)	1	440	1	82					
Sea Fisheries.....	(a)	19	2,608							
Sea Fisheries.....	(b)	3	311							
Total.....		29	5,017	1	82	58	54,279	1	870	
Port La Tour, N.S.—										
Sea Fisheries.....	(a)	2	28							
Port Mulgrave, N.S.—										
Newfoundland.....	(a)					1	557			
United States.....	(a)	1	1,375	2	800	1	1,282			
Total.....		1	1,375	2	800	2	1,839			
Port Williams, N.S.—										
Great Britain.....	(a)					7	5,470			
Denmark.....	(a)	1	790							
Total.....		1	790			7	5,470			
Powell River, B.C.—										
British West Indies.....	(a)	1	1,249							
United States.....	(a)	44	34,042	100	100,342					
Australia.....	(a)	6	23,865			1	2,501			
Argentina.....	(a)			11	39,112					
Total.....		51	59,156	111	139,454	1	2,501			
Prince Rupert, B.C.—										
United States.....	(a)	138	134,329	137	26,750					
Sea Fisheries.....	(a)	1,066	11,511	1,060	27,650					
Total.....		1,204	145,840	1,197	54,400					

(a) Steam—Vapeurs.

(b) Sail—Voiliers.

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves-	Tons	Ves-	Tons	Ves-	Tons	Ves-	Tons	Ves-	Tons
	sels — Na- vires	Register — Tonnage enre- gistré	sels — Na- vires	Register — Tonnage enre- gistré	sels — Na- vires	Register — Tonnage enre- gistré	sels — Na- vires	Register — Tonnage enre- gistré	sels — Na- vires	Register — Tonnage enre- gistré
Quatsino, B.C.—										
Japan.....(a)	1	28	40	857						
For Sea.....(a)	4	3,358	6	23,360						
United States.....(a)										
Total.....	5	3,366	46	24,217						
Quebec, Que.—										
Great Britain.....(a)	72	540,999								
Newfoundland.....(a)	56	53,593								
Newfoundland.....(b)	7	223								
Belgium.....(a)	15	47,704			2	4,180				
France.....(a)	2	4,764			7	22,177				
Germany.....(a)	6	42,664			11	32,395				
Netherlands.....(a)	4	11,710			7	22,536				
Italy.....(a)	2	6,435								
United States.....(a)	6	31,957	2	4,045	1	3,637				
United States.....(b)			1	87						
Greece.....(a)	1	2,355								
Total.....	171	742,402	3	4,132	28	84,925				
Richibucto, N.B.—										
Great Britain.....(a)					1	744				
United States.....(a)			1	1,141						
United States.....(b)	2	1,464								
Total.....	2	1,464	1	1,141	1	744				
Rimouski, Que.—										
Great Britain.....(a)	3	5,400								
United States.....(a)	61	69,446	9	10,941						
Total.....	64	74,846	9	10,941						
Riverport, N.S.—										
Newfoundland.....(a)	9	495								
St. Pierre.....(a)	10	576								
Sea Fisheries.....(a)	9	274								
Sea Fisheries.....(b)	25	2,554								
Total.....	53	3,899								
Sandy Point, N.S.—										
United States.....(a)	1	114	5	298						
Sea Fisheries.....(a)	1	36	89	6,198						
Total.....	2	150	94	6,496						
Sheet Harbour, N.S.—										
Newfoundland.....(a)					4	3,839				
United States.....(a)					12	13,912				
Sea Fisheries.....(a)	1	11								
Total.....	1	11			16	17,751				
Shelburne, N.S.—										
British West Indies.....(b)	3	1,000								
Newfoundland.....(a)	1	61								
St. Pierre.....(a)	1	53								
United States.....(a)			6	201						
United States.....(b)	1	95								
United States.....(c)		18	124	8,528						
Sea Fisheries.....(a)	1									
Total.....	7	1,227	130	8,729						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

CUSTOMS—SHIPPING REPORT

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves-sels	Tons Register	Ves-sels	Tons Register	Ves-sels	Tons Register	Ves-sels	Tons Register	Ves-sels	Tons Register
	Na-vires	Tonnage enre-gistré	Na-vires	Tonnage enre-gistré	Na-vires	Tonnage enre-gistré	Na-vires	Tonnage enre-gistré	Na-vires	Tonnage enre-gistré
Sherbrooke, N.S.—					38	30,611	1	911		
United States..... (a)										
United States..... (b)	2	745								
Total.....	2	745			38	30,611	1	911		
Shippegan, N.B.—										
Sea Fisheries..... (b)	31	385								
Sidney, B.C.—					1	3,481				
Egypt..... (a)			517	172,478						
United States..... (a)	36	3,462								
United States..... (b)	2	276								
Total.....	38	3,738	517	172,478	1	3,481				
Sorel, Que.—					2	750				
Newfoundland..... (a)										
United States..... (a)	1	96								
Total.....	1	96			2	750				
Souris, P.E.I.—										
St. Pierre..... (b)	2	196								
Sea Fisheries..... (b)	3	38								
Total.....	5	234								
Stewart, B.C.—										
United States..... (a)	27	21,392	7	2,733						
St. Andrews, N.B.—										
United States..... (a)	1,007	42,259	554	9,113						
St. George, N.B.—										
United States..... (a)	4	14	40	1,102						
United States..... (b)	4	1,828								
Total.....	8	1,842	40	1,102						
St. John, N.B.—					3	3,199				
Great Britain..... (a)	43	317,643			24	25,483				
British West Indies..... (a)	6	5,028								
British West Indies..... (b)	4	2,887			1	3,753				
Newfoundland..... (a)	2	5,736			1	3,054				
Belgium..... (a)					16	21,696	1	905		
Cuba..... (a)	7	13,309			6	18,848				
France..... (a)	8	65,963			3	9,939				
Germany..... (a)	1	1,456			4	11,447				
Netherlands..... (a)										
Italy..... (a)	8	22,085			1	1,066				
Guatemala..... (a)										
San Domingo..... (a)	1	2,522					1	1,893		
Denmark..... (a)					1	557				
St. Pierre..... (a)										
Spain..... (a)	1	3,672								
United States..... (a)	127	77,974	242	182,417	13	13,304	2	1,033		
United States..... (b)	26	14,276	63	21,079						
British West Africa..... (a)	4	17,236								
British South Africa..... (a)	3	10,906								
Egypt..... (a)	3	10,699								
British Honduras..... (a)	1	1,063								
Honduras..... (a)	1	838								
Panama..... (a)	1	1,384								
Sea Fisheries..... (a)	9	74								
Total.....	256	575,449	305	203,496	73	112,346	4	3,831		

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—*Continued*

Ports and Outports and Countries for which Departed — Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter	Ves- sels	Tons Regis- ter
	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré	Na- vires	Tonnage enre- gistré
St. Peters, N.S.—										
United States..... (a)	3	2,582			12	11,696				
Sea Fisheries..... (b)	1	21								
Total.....	4	2,603			12	11,696				
St. Stephen, N.B.—										
United States..... (a)			19	292						
United States..... (b)	3	892	2	1,144						
Total.....	3	892	21	1,436						
Summerside, P.E.I.—										
Cuba..... (a)					1	1,852				
United States..... (a)	1	1,463			3	6,428	1	911		
United States..... (b)	2	1,273								
Total.....	3	2,735			4	8,280	1	911		
Sydney, N.S.—										
Great Britain..... (a)	15	38,319			5	4,748				
Newfoundland..... (a)	51	141,201	1		15	287,581	1	1,771		
Newfoundland..... (b)	22	1,459								
Belgium..... (a)	7	18,043			1	1,481				
France..... (a)	3	6,123			7	8,492				
Germany..... (a)	2	3,728								
Netherlands..... (a)	2	4,607								
Italy..... (a)	1	2,064			1	785				
Japan..... (a)	2	8,755								
St. Pierre..... (a)	4	3,900			2	1,114				
Spain..... (a)										
United States..... (a)	13	35,435			10	15,682	1	1,552		
United States..... (b)			7		106					
Turkey..... (a)	1	2,307								
British South Africa..... (a)	9	36,613								
New Zealand..... (a)	9	26,496								
Argentina..... (a)					1	2,274				
Greece..... (a)					1	1,317				
French Africa..... (a)					1	1,295				
Sea Fisheries..... (a)	3	450								
Sea Fisheries..... (b)			34	1,180						
Total.....	144	329,500	42	1,301	139	324,769	2	3,323		
Three Rivers, Que.—										
Great Britain..... (a)	37	140,790			1	2,274				
Newfoundland..... (a)					4	9,085				
United States..... (a)	2	6,039								
Argentina..... (a)	6	21,841								
Total.....	45	168,670			5	11,359				
Truro, N.S.—										
United States..... (b)	2	610								
Union Bay, B.C.—										
Great Britain..... (a)	12	38,053								
China..... (a)	4	13,409								
Japan..... (a)										
United States..... (a)	60	132,893	28	10,651			1	2,729		
United States..... (b)			2	558						
Greece..... (a)	1	2,724								
British South Africa..... (a)	1	2,988								
British Oceania..... (a)										
Mexico..... (a)	1	1,464								
Total.....	79	191,531	30	11,209			1	2,729		

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à la sortie, etc.—*Suite*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
													15	14,278
													1	21
													16	14,299
				1	681								20	973
				1	681								5	2,036
													25	3,009
1	1,709												1	1,852
													6	10,510
1	1,709												2	1,273
													9	13,635
						1	1,872						21	44,939
						4	19,267						167	449,835
						1	2,786						22	1,459
						1	2,180						9	22,310
													10	14,615
													3	5,908
													2	4,607
								2	8,486	Italy	5	17,029	7	19,878
													4	17,241
													6	5,014
1	1,460			1	1,526	1	2,964			Italy	2	5,251	4	6,314
										Spain	2	1,063		
										Greece	2	5,283	29	63,902
													1	106
													1	2,307
													9	36,613
													9	26,496
													1	2,274
										Greece	2	5,583	3	6,900
		13	4,591										1	1,295
													16	5,041
1	1,460	13	4,591	1	1,526	8	29,069	2	8,486				34	1,180
											13	34,209	365	738,234
2	3,416	1	2,445			2	4,535			Italy	1	3,762	44	157,222
													4	9,085
													2	6,039
													6	21,841
2	3,416	1	2,445			2	4,535							
											1	3,762	56	194,187
													2	610
													12	38,053
													4	13,409
						2	9,935	1	3,739				1	3,739
													91	156,208
													2	558
													1	2,724
													1	2,988
										Finland	1	3,314	1	3,314
													1	1,464
						2	9,935	1	3,739		1	3,314	114	222,457

CUSTOMS—SHIPPING REPORT

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—Continued

Ports and Outports and Countries for which Departed Ports et ports secondaires et pays de destination	Great Britain Grande-Bretagne		United States États-Unis		Norway Norvège		Sweden Suède		Belgium Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Vancouver, B.C.—										
Great Britain..... (a)	149	574,260	15	56,144	26	99,858	2	5,799	1	3,072
British West Indies..... (a)	8	19,133	3	6,044	1	3,345				
Portugal..... (a)	2	7,181								
Denmark..... (a)					5	14,753			4	14,787
Belgium..... (a)	3	6,161			1	3,005				
Brazil..... (a)			26	121,429	4	10,934				
China..... (a)	9	34,253	1	3,465	4	11,394	2	5,870		
Peru..... (a)			2	2,106						
Fiji..... (a)					2	5,754				
France..... (a)	2	7,269			1	2,417				
Germany..... (a)	7	24,353			2	5,450				
Netherlands..... (a)			1	3,664						
Irish Free State..... (a)										
Italy..... (a)					2	7,692				
Norway..... (a)			3	16,366	3	7,866				
Japan..... (a)	8	37,070								
British Oceania..... (a)	2	3,023								
Greece..... (a)	4	11,959								
St. Pierre..... (a)	1	587								
Chile..... (a)			2	7,345	1	2,829	11	33,285		
Sweden..... (a)										
United States..... (a)	875	1,591,764	452	745,942	14	43,361	2	5,082	1	3,988
Mexico..... (a)	12	3,353			3	7,864	10	29,836		
Australia..... (a)	34	189,697								
Uruguay..... (a)			1	3,547						
New Zealand..... (a)	5	17,919	12	42,634						
Colombia..... (a)			17	34,246						
Hong Kong..... (a)	35	280,252	4	14,600						
Honduras..... (a)	2	65					1	2,729		
Argentina..... (a)	2	11,668	4	14,309	4	11,018				
British South Africa..... (a)	4	12,866	4	13,496	2	6,951				
Hawaii..... (a)			2	7,124						
Sea Fisheries..... (a)	136	2,248	14	284						
British Straits Settlements..... (a)										
Total.....	1,300	2,835,081	563	1,092,745	75	244,491	28	82,601	6	21,847
Victoria, B.C.—										
British West Indies..... (a)	2	3,811	1	2,002						
New Zealand..... (a)	6	52,283								
China..... (a)	3	34,505			2	5,728				
Australia..... (a)	12	78,427								
British South Africa..... (a)	1	3,154								
Japan..... (a)	18	153,525	27	226,652	1	2,864				
For Sea..... (a)	23	451	104	1,957						
Hawaii..... (a)	3	30,389								
United States..... (a)	721	898,362	978	1,630,346	2	7,103	1	2,353		
United States..... (b)	129	30,138	17	7,443						
Total.....	218	1,285,045	1,127	1,868,400	5	15,695	1	2,353		
Westport, N.S.—										
United States..... (a)	4	130	31	268						
Weymouth, N.S.—										
Great Britain..... (a)					1	914				
British West Indies..... (b)	2	476								
Cuba..... (b)	2	690								
United States..... (a)					3	1,425				
United States..... (b)	32	4,998	1	14						
Total.....	36	6,164	1	14	4	2,339				
White Rock, B.C.—										
United States..... (a)	5	166	2	20						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

No. 14.—STATEMENT of the Number and Tonnage of Steam and Sailing Vessels entered Outwards, for Sea, etc.—*Concluded*

Ports and Outports and Countries for which Departed Ports et ports secondaires et pays de destination	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
Windsor, N.S.—										
United States..... (a)	98	186,990			38	32,076				
United States..... (b)	23	6,441	19	12,638						
Total.....	121	193,431	19	12,638	38	32,076				
Winnipeg, Man.—										
Newfoundland..... (a)	1	1,115								
Yarmouth, N.S.—										
British West Indies..... (b)	8	633								
Newfoundland..... (b)	19	1,136								
St. Pierre..... (b)	18	1,112								
United States..... (a)	31	28,892	145	315,029						
United States..... (b)	6	1,001	42	1,264						
Sea Fisheries..... (b)	34	2,045	52	2,586						
Total.....	116	34,819	239	318,879						

(a) Steam—Vapeurs. (b) Sail—Voiliers.

N° 14.—ÉTAT du nombre et du tonnage des long-courriers à voiles et à vapeur, déclarés à la sortie, etc.—*Fin*

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres nationalités			Total	
Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
2	1,858			2	2,182								140	223,106
2	1,858			2	2,182								42	19,079
													182	242,185
													1	1,115
													8	633
													19	1,136
													18	1,112
													176	343,921
													48	2,265
													86	4,631
													355	353,698

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No. 15.—SUMMARY STATEMENT of the Nationality of Sea-going Vessels entered Outwards, *for Sea*, for each Country

No.	Countries for which departed Pays de destination	Great Britain — Grande-Bretagne		United States — États-Unis		Norway — Norvège		Sweden — Suède		Belgium — Belgique	
		Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vires	Tons Regis- ter — Tonnage enre- gistré
1	Great Britain.....	923	4,821,496	26	97,527	98	198,898	6	15,085	2	6,178
2	Australia.....	88	429,122			6	16,093	10	29,836		
3	British South Africa.....	32	122,441	4	13,496	2	6,951				
4	British West Africa.....	4	17,236			8	11,195	1	857		
5	British Guiana.....	56	182,057								
6	British Honduras.....	6	17,587			44	54,083	14	14,117		
7	British West Indies.....	160	287,350	4	8,046	2	5,728				
8	British Oceania.....	12	34,065	3	5,528						
9	British Straits Settlements.....			2	2,106						
10	Fiji Islands.....	35	280,252	4	14,600						
11	Hong Kong.....	5	15,950	1	3,664						
12	Irish Free State.....	1,004	731,530	5	392	217	369,007	4	5,356		
13	Newfoundland.....	38	158,774	12	42,634	8	20,821				
14	New Zealand.....	9	36,731	15	53,421	19	47,115			6	21,107
15	Argentina.....	54	149,723			1	3,005				
16	Belgium.....	14	50,028			1	2,829				
17	Brazil.....			2	7,345	4	10,934				
18	Chile.....	20	97,689	27	126,203	1	1,637				
19	China.....	25	127,269	20	51,705	25	31,787	1	905		
20	Colombia.....	14	22,800	1	1,350			1	1,893		
21	Cuba.....	1	790			1	4,397				
22	Denmark.....					1	3,481				
23	Dutch West Indies.....	3	10,699			32	86,455				
24	Egypt.....	40	272,616			1	1,295				
25	France.....										
26	French Africa.....	1	397			32	90,100				
27	French West Indies.....	15	65,847	4	14,086	6	11,720				
28	Germany.....	11	27,087			1	1,066				
29	Greece.....										
30	Guatemala.....	3	30,389	2	7,124			1	2,729		
31	Hawaii.....	3	903								
32	Honduras.....										
33	Italy.....	26	74,315	1	3,179	1	785	2	5,604		
34	Japan.....	34	224,240	37	272,432	7	18,596				
35	Mexico.....	15	9,867			28	83,938				
36	Netherlands.....	32	97,236			14	44,478				
37	Norway.....	1	1,384					2	5,870		
38	Panama.....	20	101,402	1	3,465	5	14,223				
39	Peru.....	1	1,783								
40	Poland.....	10	1,374	1	3,046						
41	Porto Rico.....	2	7,181								
42	Portugal.....	1	2,522								
43	San Domingo.....	4	9,958								
44	Spain.....	213	64,592			14	9,929	22	127,486		
45	St. Pierre.....					1	681				
46	Sweden.....	2	4,614								
47	Turkey.....										
48	United States.....	6,397	5,516,781	5,070	4,322,203	398	610,765	48	296,779	2	6,597
49	Uruguay.....			1	3,547						
50	Venezuela.....	6	23,049			1	5,217				
51	For Sea.....	76	47,139	146	3,698						
52	Sea Fisheries.....	2,579	112,317	2,131	66,492						
	Total.....	11,995	14,290,582	7,520	5,127,289	979	1,767,299	112	506,517	10	33,882

N° 15.—ÉTAT SOMMAIRE des long-courriers déclarés à la sortie, pour chaque pays

Denmark — Danemark		France — France		Germany — Allemagne		Netherlands — Pays-Bas		Japan — Japon		Other Nationalities — Autres Nationalités			Total		No.	
Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Flag — Pavillon	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré	Ves- sels — Na- vi- res	Tons Regis- ter — Tonnage enre- gistré		
14	39,941	7	18,125	6	17,610	16	75,439	3	12,741	Greece.....	1	3,437	1,110	5,331,469	1	
2	7,276							1	3,306	Italy.....	6	20,650				
										Spain.....	2	4,342				
15	17,980												107	485,633	2	
15	27,645	4	224			1	49			Finland.....	1	1,348	38	142,888	3	
						1	5,313			Finland.....	1	3,314	4	17,236	4	
										Italy.....	1	822	80	212,089	5	
2	3,170	3	171	2	1,626	5	20,401						6	17,587	6	
3	5,312			1	4,803	8	18,792	1	4,254	Italy.....	3	13,218	243	392,862	7	
5	13,523							23	92,415	China.....	2	8,407	18	48,635	8	
1	5,064			6	29,910					Poland.....	1	5,096	1	5,313	9	
5	9,370									Italy.....	2	7,392	3	2,928	10	
20	86,787												39	294,852	11	
		24	83,786			2	4,793			Italy.....	12	46,010	1,242	1,131,653	12	
				70	304,034	8	27,655						50	201,408	13	
										Italy.....	2	8,706	32	110,973	14	
										Greece.....	8	22,956	95	264,324	15	
										Italy.....	2	6,746	15	53,033	16	
										Honduras.....	2	3,094	3	10,174	17	
2	3,855	1	1,795	1	1,623	5	11,628	2	8,454	Greece.....	4	10,357	13	10,174	18	
8	27,154									Italy.....	51	180,540	41	349,171	19	
1	1,872	2	6,273					289	1,244,617	Spain.....	1	3,374	81	190,771	20	
3	18,034					15	54,233			China.....	12	47,827	54	103,514	21	
										Mexico.....	1	3,237	22	89,470	22	
										Italy.....	3	10,113	1	4,397	23	
				1	1,217								4	14,180	24	
													1	493,660	25	
										Italy.....	2	397	1	1,295	26	
										Greece.....	8	8,706	131	510,518	28	
										Italy.....	2	22,956	27	68,509	29	
													1	1,066	30	
													5	37,513	31	
													6	6,726	32	
2	3,855	1	1,795	1	1,623	5	11,628	2	8,454	Honduras.....	2	3,094	97	305,509	33	
8	27,154									Greece.....	4	10,357				
1	1,872	2	6,273							Italy.....	51	180,540				
3	18,034									Spain.....	1	3,374				
										China.....	12	47,827	387	1,834,866	34	
										Mexico.....	1	3,237	16	13,104	35	
										Italy.....	3	10,113	81	253,665	36	
													17	62,512	37	
													1	1,384	38	
													28	124,960	39	
													2	3,000	40	
													11	4,420	41	
													2	7,181	42	
													1	2,522	43	
1	1,849	8	2,828							Italy.....	4	11,133	16	30,635	44	
										Spain.....	8	9,544				
										Finland.....	1	2,500	235	77,349	45	
													25	132,516	46	
													2	4,614	47	
99	395,916	18	87,360	55	312,337	28	221,603	83	198,901	China.....	2	8,019	12,210	12,007,170	48	
										Greece.....	4	10,566				
										Italy.....	3	10,180				
										Panama.....	1	5,651				
										Peru.....	1	3,164				
										Spain.....	1	343				
													1	3,547	49	
													8	33,268	50	
													236	66,225	51	
196	664,748	273	278,505	143	678,162	89	439,906	402	1,564,693	Spain.....	23	12,797	4,925	254,161	52	
													166	484,883	21,885	25,836,466

No. 16.—STATEMENT showing the Description, Number and Tonnage of Canadian and United States Vessels trading on the Rivers and Lakes between Canada and the United States (exclusive of Ferriage) which arrived at each Port and Outport

N° 16.—ÉTAT indiquant la description, le nombre et le tonnage des navires du Canada et des États-Unis naviguant sur les rivières et lacs entre le Canada et les États-Unis (à l'exclusion des traversiers) arrivés à chaque port ou port secondaire

VESSELS ARRIVED—NAVIRES ARRIVÉS

Ports and Outports Ports et ports secondaires	Canadian—Canadiens				United States—États-Unis			
	Steam and Motor—Vapeurs		Sail—Voiliers		Steam and Motor—Vapeurs		Sail—Voiliers	
	Vessels Navires	Tons register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons register Tonnage enregistré
Amherstburg, Ont.	216	166, 181	4, 286					
Belle River, Ont.								
Belleville, Ont.	59	56, 762	1, 051					
Blind River, Ont.	3	288	22					
Bridgeburg, Ont.	499	228	903	877	450	997		
Britt, Ont.	24	52, 089	543					
Brockville, Ont.	169	193, 309	10, 872					
Chicoutimi, Que.	2	2, 345	43					
Cobourg, Ont.	710	2, 323, 495	25, 308					
Cockburn Island, Ont.	4	63	113					
Collingwood, Ont.	5	6, 892						
Cornwall, Ont.	4	4, 576	89					
Courtville, Ont.	4	8		4	922	4		
Dawson, Y. T.	4	101, 730	1, 342					
Depot Harbour, Ont.	57							
Deseronto, Ont.								
Dunville, Ont.	17	266	94					
Fort Frances, Ont.	169	472, 598	6, 497					
Fort William, Ont.	479	2, 136	6					
Gananoque, Ont.	2	51	107					
Georgetown, Que.	4	5, 923						
Goderich, Ont.			9, 205					
Gore Bay, Ont.	298	360, 262						
Hamilton, Ont.								
Isle Royale, Ont.								
Iroquois, Ont.			104					
Kenora, Ont.	53	150						
Kinardine, Ont.	1	671	18					
Kingsville, Ont.	928	626, 645	29, 320	95	11, 290	261		
Kingsville, Ont.	7	474	35					
Leamington, Ont.	10	89	28					
Levis, Que.								
Little Current, Ont.	15	25, 746	314					
Magog, Que.	1	50	5					

CUSTOMS—SHIPPING REPORT

No. 16.—SUMMARY STATEMENT of Canadian and United States Vessels trading on Inland Waters, which arrived at Canadian Ports and Outports

N° 16.—ÉTAT SOMMAIRE des navires du Canada et des États-Unis naviguant sur les eaux intérieures, arrivés aux ports du Canada

RECAPITULATION—RÉCAPITULATION

	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage
Canadian—Canadiens:—Steam and motor—Vapeurs.....	9,285	9,183,401	271,221
Sail—Voiliers.....	1,276	72,227	2,080
United States—États-Unis:—Steam and motor—Vapeurs.....	42,989	8,010,012	261,251
Sail—Voiliers.....	1,192	284,945	2,758
Total.....	54,742	17,550,585	537,310

DESCRIPTION OF VESSELS—DESCRIPTION DES NAVIRES

Description	Vessels — Navires	Tons register — Tonnage enregistré
Steam—Vapeurs:—Screw—À hélice.....	39,806	15,324,778
Paddle—À aubes.....	1,630	1,749,998
Stern-wheel—Roue à l'arrière.....	9	5,427
Motor—Moteur.....	10,829	113,210
Sail—Voiliers:—Sailing—À voiles.....	43	10,602
Barges—Barges.....	2,425	346,570
Total.....	54,742	17,550,585

No. 17.—STATEMENT showing the Description, Number and Tonnage of Canadian and United States Vessels trading on the Rivers and Lakes between Canada and the United States (exclusive of Ferriage), which Departed from each Port and Outport

No 17.—ÉTAT indiquant la description, le nombre et le tonnage des navires du Canada et des États-Unis naviguant sur les rivières et lacs entre le Canada et les États-Unis (à l'exclusion des traversiers), partis de chaque port ou port secondaire

VESSELS DEPARTED—NAVIRES PARTIS

Ports and Outports Ports et ports secondaires	Canadian—Canadiens					United States—États-Unis						
	Steam and Motor—Vapeurs			Sail—Voiliers		Steam and Motor—Vapeurs			Sail—Voiliers			
	Vessels Navires	Tons register Tonnage enregistré	Crew — Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew — Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew — Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew — Équipage
Amherstburg, Ont.	220	153, 198	5, 907				5, 020	494, 324	24, 041			
Belle River, Ont.	60	54, 915	1, 004				9	432	6		4, 974	47
Blind River, Ont.	3	1, 477	45				6	3, 985	88		5	5
Bridgeburg, Ont.	553	255	1, 172	1, 342	682	1, 523	72	28, 011	883	1	2, 324	36
Britt, Ont.	23	48, 320	509				581	1, 110	910	6	3, 645	200
Brockville, Ont.	178	209, 654	11, 764				52	146, 374	1, 358	175		
Cobourg, Ont.	708	2, 308, 201	25, 168				343	19, 947	2, 048			
Cockburn Island, Ont.		128	24									
Collingwood, Ont.	8	17, 614	175				42	13, 539	349	1	567	6
Cornwall, Ont.							10	22, 121	260			
Courtright, Ont.	2	252	14				7	2, 533	74			
Dawson, Y. T.	7	16	1, 523	5	934	5	387	1, 125	407			
Depot Harbour, Ont.	63	113, 005					8	4, 824	245		1, 901	130
Dunville, Ont.							74	190, 493	1, 875			
Dunnville, Ont.							1	4	2			
Fort Frances, Ont.										1	4	4
Fort William, Ont.	17	266	94									
Gananoque, Ont.	91	258, 322	2, 497				301	1, 079, 889	8, 306	17	36, 218	152
Georgierville, Que.	479	2, 136	714				5, 870	38, 663	4, 969			
Goderich, Ont.	2	51	6									
Gore Bay, Ont.	22	51, 215	528									
Hamilton, Ont.												
Hull, Que.	290	333, 678	6, 943				46	74, 214	626			
Iroquois, Ont.							11	4, 649	138			
Kenora, Ont.	45	117	90				10	4, 929	166	24	10, 890	24
Kincardine, Ont.										34	4, 389	68
Kingston, Ont.							11	790	61			
Kingsville, Ont.	998	649, 928	29, 660	67	11, 162	209	113	5, 234	537			
Leamington, Ont.	7	483	35				632	35, 142	396			
Little Current, Ont.	3	674	15				368	6, 891	1, 113			
Magog, Que.	10	22, 700	211				82	2, 301	745			
Midland, Ont.	1	50	5				22	368	165			
Montreal, Que.	57	186, 204	1, 421	1	2, 638	13		50, 808	498			
	712	819, 890	14, 063	3	2, 208	16	67	232, 093	1, 764			
							85	69, 042	1, 516			

No. 17.—STATEMENT showing the Description, Number and Tonnage of Canadian and United States Vessels trading on the Rivers and Lakes, etc.—*Concluded*

N° 17.—ÉTAT indiquant la description, le nombre et le tonnage des navires du Canada et des États-Unis naviguant sur les rivières et lacs, etc.—*Fin*

VESSELS DEPARTED—*Concluded*—NAVIRES PARTIS—*Fin*

Ports and Outports Ports et ports secondaires	Canadian—Canadiens				United States—États-Unis			
	Steam and Motor—Vapeurs		Sail—Voiliers		Steam and Motor—Vapeurs		Sail—Voiliers	
	Vessels — Navires	Tons register Tonnage enregistré	Crew — Équipage	Vessels — Navires	Tons register Tonnage enregistré	Crew — Équipage	Vessels — Navires	Tons register Tonnage enregistré
Morrisburg, Ont.	1	15	1	1	15	53		
Napanee, Ont.	880	750,707	59,147	3	555	24		
Niagara Falls, Ont.						719		
Ottawa, Ont.	7	18,103	157			65,156		
Owen Sound, Ont.	14	31,545	319			28,728		
Parry Sound, Ont.	4	4,572	80			4,564		
Pasphebiac, Q. e.	9	9	9			2,778		
Penetanguishene, Ont.	17	17	11			7,277		
Pictou, Ont.	3	344,834	6,646	1	700	7,012		
Port Arthur, Ont.	191	834	47			119		
Port Burwell, Ont.	9	754	6,754	6	1,872	2,097		
Port Colborne, Ont.	423	719,897	2,981			6,735		
Port Dover, Ont.	52	2,981	204			110		
Port Hope, Ont.	3	34,347	384			73,378		
Port Matland, Ont.	120	34,347	676			90,635		
Port McNicoll, Ont.	27	79,688	540			140,880		
Port Stanley, Ont.	22	71,650	9,724			677		
Prescott, Ont.	253	251,967	7,762	3	153	95		
Quebec, Que.	38	44,899	245			8		
Rainy River, Ont.	181	69,446	1,221			10,941		
Rimouski, Que.	61	2,144	536			2,142		
Rockport, Ont.	268					2		
Ryegate, B.C.	28	16,817	309			16		
St. Catharines, Ont.	1	15,895	20			261		
St. John's, Ont.	17	496,784	10,290	66	20,842	10,670		
Sandwich, Ont.	489	487,016	8,068	3	1,056	140,051		
Sarnia, Ont.	745	4,704	85			6,118		
Sault Ste. Marie, Ont.	5					57		
Sault Ste. Marie, Ont.						231		
Sorel, Que.						1,764		
Southampton, Ont.	1					734		
Stuckee, B.C.	90	100,091	1,804			823		
Thornhill, Ont.	23	29,461	482	115	18,258	33,906		
Three Rivers, Que.	1,125	1,025,833	62,418	10	8,582	13,351		
Toronto, Ont.						750		

CUSTOMS—SHIPPING REPORT

No. 17.—SUMMARY STATEMENT of Canadian and United States Vessels, trading on Inland Waters, which Departed from Canadian ports

N° 17.—ÉTAT SOMMAIRE des navires canadiens et des États-Unis naviguant sur les eaux intérieures, partis des ports du Canada

RECAPITULATION—RÉCAPITULATION

	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage
Canadian—Canadiens:—Steam and Motor—Vapeurs.....	9,894	10,133,814	283,083
Sail—Voiliers.....	1,651	74,408	2,496
United States—États-Unis:—Steam and Motor—Vapeurs.....	42,807	8,389,248	263,265
Sail—Voiliers.....	1,248	298,502	2,932
Total.....	55,600	18,895,972	551,776

DESCRIPTION OF VESSELS—DESCRIPTION DES NAVIRES

Description	Vessels — Navires	Tons register — Tonnage enregistré
Steam—Vapeurs:—Screw—À hélice.....	40,194	16,591,609
Paddle—À aubes.....	1,715	1,833,004
Stern-wheel—Roue à l'arrière.....	9	5,427
Motor—Moteur.....	10,783	93,022
Sail—Voiliers:—Sailing—À voiles.....	36	6,531
Barges—Barges.....	2,863	366,379
Total.....	55,600	18,895,972

No. 18.—STATEMENT showing the Description, Number and Tonnage of Canadian and United States Vessels trading on the Rivers and Lakes between Canada and the United States (exclusive of Ferriage), which Arrived and Departed.

N° 18.—ÉTAT indiquant la description, le nombre et le tonnage des navires canadiens et des États-Unis naviguant sur les rivières et les lacs entre le Canada et les États-Unis (à l'exclusion des traversiers) arrivés et partis.

—	Canadian—Canadiens			United States—États-Unis			Total		
	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage	Vessels — Navires	Tons register — Tonnage enregistré	Crew — Équipage
Arrived—Arrivés.	10,561	9,255,628	273,301	44,181	8,294,957	264,009	54,742	17,550,585	537,310
Departed—Partis.	11,545	10,208,222	285,579	44,055	8,687,750	266,197	55,600	18,895,972	551,776
Total.....	22,106	19,463,850	558,880	88,236	16,982,707	530,206	110,342	36,446,557	1,089,086

STEAMERS AND MOTOR BOATS—VAPEURS

Ports and Outports Ports et ports secondaires	Vessels Arrived—Arrivés					Vessels Departed—Partis				
	British—Britanniques			Foreign—Étrangers		British—Britanniques			Foreign—Étrangers	
	Vessels Navires	Tons register — Tonnage enregistré	Crew — Équipage	Vessels Navires	Tons register — Tonnage enregistré	Crew — Équipage	Vessels Navires	Tons register — Tonnage enregistré	Vessels Navires	Tons register — Tonnage enregistré
Alert Bay, B.C.	1,294	550,794	29,539	6	7,149	128	1,294	484,968	29,691	
Amherst, N.S.	52	25,971	816				57	23,019	773	
Annapolis Royal, N.S.	58	3,775	351				59	3,775	351	
Anyox, B.C.	580	300,577	11,578				477	268,551	10,763	
Aurichat, N.S.	580	58,073	3,570				584	58,288	3,427	
Aultsville, Ont.	438	13,124	954				58	13,124	954	
Baddeck, N.S.	438	42,905	3,083	1	1,428	24	436	41,868	3,086	
Bamfield, B.C.	578	134,288	6,633	1	1,440	25	579	126,544	6,652	
Barrington Passage, N.S.	697	41,250	5,012	14	465	54	700	31,358	4,908	
Bathurst, N.B.	92	7,449	173	1	660	17	7	5749	107	551
Bear River, N.S.	99	42,977	997				100	43,048	995	63
Bellefleur, Ont.	47	35	42				46	35	43	
Blind River, Ont.	47	4,577	401	1	4	1	72	6,455	423	
Blubber Bay, B.C.	29,731	1,885					182	27,082	1,791	33
Bonne Espérance, Que.	286	39,250	2,529				2	15,669	1,478	
Bridgeburg, Ont.	27	946	73				5	942	69	
Bridgetown, N.S.	37	70	54				10	20	10	
Bridgewater, N.S.	110	2,220	222				37	2,220	222	
Britannia Beach, B.C.	640	5,480	514				111	5,493	516	
Britt, Ont.	2,671	155,667	10,902				629	148,053	10,830	
Brockville, Ont.	303	2,671	41				4	2,743	46	
Buctouche, N.B.	294,291	14,798	14,798				299	277,946	13,906	21
Butedale, B.C.	3	41	8				4	47	11	2
Campbellton, N.B.	650	266,313	14,991				647	267,699	14,984	
Campobello, N.B.	69	38,378	725	4	6,210	95	64	31,579	547	
Canning, N.S.	253	42,191	2,636				306	30,153	1,970	4
Canso, N.S.	13	1,630	115				13	1,630	115	44
Caracquet, N.B.	1,577	171,000	13,752	3	2,782	59	1,598	168,928	13,686	2
Carcross, Y.T.	34	1,458	141				33	1,446	139	
Charlottetown, P.E.I.	92	68,632	2,771				92	68,632	2,773	
Chatham, N.B.	450	158,880	7,187				420	130,858	6,166	
Chemainus, B.C.	39,150	24,086	527	5	6,861	113	377	33,409	457	
	402		3,836					12,740	2,475	

Ladysmith, B.C.	1,140	96,268	12,418	1	6	2	1,114	97,580	11,930	1	6	2
La Have, N.S.	175	12,501	1,028					12,574	1,040	1		
Leamington, Ont.	378	82,678	4,140					61,520	4,221			
Levis, Que.	69	208,435	2,452					209,737	2,503	1		43
Little Bras d'Or, N.S.	187	72,278	4,553					80,974	4,664			
Liverpool, N.S.	137	44,926	1,190					40,442	1,194	8		
Lockport, N.S.	13		8									
Lord's Cove, N.B.	86	3,516	422					13				62
Louisburg, N.S.	160	73,947	1,679					2,249	450			
Lower East Falmico, N.S.	148	4,704	1,021					53,610	1,520	6		14
Malabar, N.S.	222	20,959	1,105					4,760	1,017			
Malbone Bay, N.S.	51		896					20,898	923	8		32
Marland, N.S.	18	3,182	174					3,046	177	4		30
Metegan River, N.S.	151	1,980	129					1,857	126			
Midland, Ont.	41	1,700	132					2,407	217	3		6
Midland, N.B.	132	208,822	2,853					139,932	2,451			
Moncton, N.S.	3	160	13									
Montague, P.E.I.	3	357	26					39		1		
Montigny, Que.	23	4,180	124					569				
Montreal, Que.	4,215	3,562,379	99,843					3,391,019	97,085	52		1,132
Moose Factory, Ont.												
Morrisburg, Ont.	61	14,030	1,147					15,234	1,169	1		49
Namook, B.C.	2,546	894,715	60,787					911,450	61,227	1		37
New Campbellton, N.S.	66	10,157	623					10,270	632			3
Newcastle, N.B.	1	1,697	26									
New Westminster, B.C.	1,550	321,987	16,994									
Niagara Falls, Ont.	1,317	1,190,438	90,507					336,503	18,756			
North Head, N.B.	4	224	32					1,170,955	78,804	1		18
North Stoney, N.S.	204	8,881	700					32				3
North West Harbour, N.S.	285	234,496	4,861					8,732	714	1		15
Ocean Falls, B.C.	1,088	609,544	28,503					253,807	5,233	16		323
Ottawa, Ont.	155	16,099	2,020					574,803	28,589			
Owen Sound, Ont.	285	215,550	6,979					16,072	2,011			
Parrisho, N.S.	354	28,553	2,240					226,407	7,130			
Parry Sound, Ont.	82	31,302	1,568					28,360	2,282			
Paspébiac, Que.	93	23,529	1,094					42,013	1,637			15
Penikese, Ont.	2	67	10					14,187	1,697	17		
Pictou, N.S.	149	56,236	1,741					111				371
Pictou, N.S.	379	139,356	6,482					56,121	1,719			
Pointe-a-Pic, Que.	16	19,142	754					135,306	6,392			
Port Alberni, B.C.	401	117,753	5,715					19,142	754	1		17
Port Alfred, Que.	136	293,094	9,715					112,963	5,804			
Port Arthur, Ont.	707	1,680,113	34,498					309,659	9,961			
Port Burwell, Ont.	6	193	31					1,775,753	32,504	21		564
Port Clyde, N.S.	93	4,375	698					220	35			
Port Colborne, Ont.	643	1,016,446	13,180					4,376	696			
Port Dover, Ont.	25	669	131					593,886	10,712			
Port Elgin, N.B.								490	91	3		
Port Hope, Ont.	259	15,060	1,198					28				9
Port Hope, Ont.	3	1,199	23					17,555	1,286			
Port Le Tour, N.S.	104	4,582	724					2				
Port McNicoll, Ont.	50	360	183					4,221	708	6		12
Port Maitland, Ont.	179	430,955	8,371					97	97			
Port Mearns, Ont.	3	912	64					391,128	7,828	4		9
Port Morien, N.S.	6	1,024	43					912	64			
Port Mulgrave, N.S.	1,176	111,730	9,560					1,024	43			
Port Stanley, Ont.	89	72,000	1,600					110,709	9,547			
Port Williams, N.S.	8	2,244	77					72,500	1,610			
								1,572	57	2		38

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SAILING VESSELS—VOILIERS

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No. 19.—STATEMENT of Vessels, British and Foreign, entered and cleared Coastwise—*Concluded*
 N° 19.—ÉTAT des navires britanniques et étrangers déclarés et à la sortie comme cabotiers—*Fin*

SAILING VESSELS—*Concluded*—VAILLERS—*Fin*

Ports and Outports Ports et ports secondaires	Vessels Arrived—Arrivés						Vessels Departed—Partis					
	British—Britanniques			Foreign—Étrangers			British—Britanniques			Foreign—Étrangers		
	Vessels Navires	Tons register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons register Tonnage enregistré	Crew Équipage
Glace Bay, N.S.	36	1,643	101				32	1,608	83			
Guysboro, N.S.	29	1,633	61				31	1,522	66			
Halifax, N.S.	357	18,424	1,263				90	9,943	436	1	635	9
Hamilton, Ont.	17	11,400	112				17	11,400	112			
Hantsport, N.S.	4	328	10				4	328	10			
Hillsboro, N.B.	1	387	6			5						
Iona, N.S.	1	72	3		1	373						
Isaacs Harbour, N.S.	17	1,171	47				16	1,141	43			
Kentville, N.S.												
Kingston, Ont.	10	1,700	26				12	3,842	43			
Ladysmith, B.C.	673	684,997	3,230				682	678,687	2,723			
La Have, N.S.	37	9,136	238				33	8,736	153			
Little Bras D'or, N.S.	163	7,950	456				103	7,950	456			
Liverpool, N.S.	6	2,455	38				17	2,579	41			
Lockport, N.S.	16	630	48	12		50	3	685	47	6	107	18
Lord's Cove, N.B.	2	190	10				3	285	12			
Louisburg, N.S.	140	5,285	472				131	4,847	424			
Lower East Pubnico, N.S.	1	92	5				1	92	5			
Lunenburg, N.S.	50	8,469	337				55	9,697	282	1	100	6
Malabar Bay, N.S.	2	164	8				6	627	79			
Maitland, N.S.	5	1,490	25				4	1,280	21			
Meteghan River, N.S.	6	2,578	32				6	2,337	34	1	475	6
Midland, Ont.	10	24,983	126				10	24,972	126			
Moncton, N.B.	10	710	29				6	507	26			
Montague, P.E.I.	59	2,756	174				44	1,737	106			
Montagny, Que.	47	7,848	113				47	7,848	113			
Montreal, Que.	409	161,559	1,346			65	433	184,217	1,448	23	3,864	48
Morrisburg, Ont.	1	507	10	23								
Nanaimo, B.C.	61	51,091	294				61	57,454	257			
Napawee, Ont.	2	98	7				1	40	2			
New Campbellton, N.S.	13		2				3	65	12			
Newcastle, N.B.	25	971	73	2		158	25	971	73			
New Glasgow, N.S.	41	1,002	83				41	1,002	83			
New Westminster, B.C.	283	25,840	1,408				278	249,216	1,429			
Niagara, Ont.	5	2,288	50				8	2,124	55			
North Head, N.B.	4						2	495	10			
North Sydney, N.S.	336	18,697	1,655				364	22,933	1,843			
Ocean Falls, B.C.	7	14,748	86				7	14,798	80			
Ottawa, Ont.	86	15,636	172				93	16,937	186			

Wren Sound, Ont.	27	25,502	156	8	2,666	39	72	25,474	166	
Parsboro, N.S.	95	21,596	426				72	12,693	285	
Pictou, N.S.	226						3	25,382	618	
Port Alfred, Que.	3	27,181	640	1	361	32	1	361	32	
Port Arthur, Ont.	8	13,552	67				3	2,638	13	
Port Hawkesbury, N.S.	52	2,400	80				32	9,478	276	
Port Mulgrave, N.S.	18	3,957	162				58	4,139	191	
Port Wade, N.S.	6	892	45				18	6,878	46	
Port Williams, N.S.	6	274	19				6	274	19	
Powell River, B.C.	16	255	15				5	255	19	
Prescott, Ont.	33	272	92				15	33,122	90	
Prince Rupert, B.C.	27	2,700	27				3	1,748	5	
Quatsino, B.C.	3	36,947	91				26	31,231	92	
Quebec, Que.	163	6,300	11				3	6,300	13	
Richibucto, N.B.	19	13,937	560	15	1,583	33	158	14,847	595	58
Riverport, N.S.	49	4,163	165				47	2,690	194	
Rivière-du-Loup, Que.	12	1,561	78				30	4,310	276	
Sackville, N.B.	8	105	9				3	105	9	
Sandwich, Ont.	24	16,843	214				1	32	2	
Sandy Point, N.S.	2	116	6				24	17,816	225	
Sarnia, Ont.	222	139,086	2,014				4	591	20	
Shediac, N.B.	4	64	132				218	136,773	2,014	
Sheet Harbour, N.S.	47	1,846	25				7	415	20	
Sherburne, N.S.	5	1,194	43				3	287	10	
Sherbrooke, N.S.	14	1,385	43				12	677	29	
Shippegan, N.B.	11	903	43				11	903	43	
Sidney, B.C.	52	30,514	230				2	362	3	
Sorel, Que.	46	2,281	115				57	34,927	243	
Souris, P.E.I.	31	20,144	34				47	3,127	122	
Stewart, B.C.	36	2,813	55				31	20,791	54	
St. Catharines, Ont.	34	6,318	142	1	954	2	13	6,092	78	
St. John, N.B.	1	2	2		266	4	45	13,108	241	15
St. Johns, Que.	48	2,442	129				6	213	13	
St. Peters, N.S.	39	6,689	118				48	2,511	132	
St. Stephen, N.B.	168	132,750	915	1	16	3	2	687	19	
Summerside, P.E.I.	246	21,096	196				41	7,932	132	
Sydney, N.S.	30	3,714	110				169	9,580	558	
Three Rivers, Que.	23	30,684	6,618				244	132,648	992	
Toronto, Ont.	1,400	1,992,244	111				18	11,043	126	
Trenton, Ont.	30	35,782	640				4	184	4	
Union Bay, B.C.	60	52,132	333				27	35,894	138	
Vancouver, B.C.	47	14,083	40				1,442	1,320,571	6,749	
Victoria, B.C.	4	1,200	6				28	22,822	68	
Wallaceburg, Ont.	1	863	43				60	53,116	648	
Welland, Ont.	8	1,910	19				47	14,083	353	
Westport, N.S.	19	3,481	200				4	1,200	40	
Weymouth, N.S.	8	1,910	43				2	605	11	
White Horse, Y.T.	52	8,409	445				20	3,757	20	
Wiarton, Ont.	42	24,782	18				1	352	2	
Windsor, N.S.	7	726					42	4,302	128	
Wolfeville, N.S.							41	35,231	433	12
Yarmouth, N.S.							11	1,565	39	9
							6	2,552	36	26
Total	7,364	3,555,731	31,558	75	15,332	309	7,195	3,591,010	30,708	284

CUSTOMS—SHIPPING REPORT

No. 19.—STATEMENT of Vessels, British and Foreign, entered and cleared.
Coastwise

N° 19.—ÉTAT des cabotiers britanniques et étrangers déclarés à l'entrée et à la sortie

RECAPITULATION—RÉCAPITULATION

	Steamers Vapeurs			Sailing Vessels Voiliers			Total		
	Vessels Navires	Tons Register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons Register Tonnage enregistré	Crew Équipage	Vessels Navires	Tons Register Tonnage enregistré	Crew Équipage
Arrived—Arrivés— British—Britanniques Foreign—Etrangers...	74,170 596	39,332,171 763,632	1,552,640 13,746	7,364 75	3,555,731 15,332	31,558 309	81,534 671	42,887,902 778,964	1,584,198 14,055
Total.....	74,766	40,095,803	1,566,386	7,439	3,571,063	31,867	82,205	43,666,866	1,598,253
Departed—Partis— British—Britanniques Foreign—Etrangers...	74,323 600	39,653,349 808,220	1,556,378 12,915	7,195 79	3,591,010 15,328	30,708 284	81,518 679	43,244,359 823,548	1,587,086 13,199
Total.....	74,923	40,461,569	1,569,293	7,274	3,606,338	30,992	82,197	44,067,907	1,600,285

DESCRIPTION OF VESSELS—DESCRIPTION DES NAVIRES

	Arrived—Arrivés		Departed—Partis		Total	
	Vessels Navires	Tons Register Tonnage enregistré	Vessels Navires	Tons Register Tonnage enregistré	Vessels Navires	Tons Register Tonnage enregistré
Steamers and motors—Vapeurs—						
Screw—À Hélice.....	61,246	37,789,565	61,214	38,079,480	122,460	75,869,045
Paddle—À aubes.....	2,292	1,200,819	2,230	1,188,187	4,522	2,389,006
Stern-wheel—Roue à l'arrière.....	272	187,376	323	224,935	595	412,311
Motor—Moteur.....	10,956	918,043	11,156	968,967	22,112	1,887,010
Total.....	74,766	40,095,803	74,923	40,461,569	149,689	80,557,372
Sailing Vessels—Voiliers—						
Sailing—À voiles.....	3,204	248,590	2,948	250,481	6,152	499,071
Barges—Barges.....	4,235	3,322,473	4,326	3,355,857	8,561	6,678,330
Total.....	7,439	3,571,063	7,274	3,606,338	14,713	7,177,401
Grand total.....	82,205	43,666,866	82,197	44,067,907	164,402	87,734,773

No. 20.—STATEMENT showing the Total Number and Tonnage of all Vessels, Arrived and Departed by Provinces, Ports and Outports

N° 20.—État indiquant le nombre total et le tonnage de tous les navires entrés et sortis, par provinces, ports et ports secondaires

NOVA SCOTIA—NOUVELLE-ÉCOSSE

DOUANES—RAPPORT DE LA NAVIGATION																							
Sea going—Long-courriers						Coastwise—Cabotiers						Rivers and Lakes—Rivières et lacs						Total					
Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés		Departed — Partis			
Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires	Ves- sels	Tons register	Na- vires
Amherst.....	14	6,102	21	14,127	11	8,166	4	186							25	14,268	25				14,313		
Annapolis Royal.....	4	418	9	853	115	5,725	112	5,477							119	6,143	121				6,330		
Bridgetown.....	1	203			37	2,220	38	2,423							38	2,423	38				2,423		
Clementsport.....	4	396	5	491	21	1,245	20	1,200							25	1,641	25				1,691		
Port Wade.....					6	274	6	274							6	274	6				274		
Arichat.....	20	384	20	381	676	61,788	682	62,088							696	62,172	702				62,469		
St. Peters.....	10	7,604	16	14,299	273	28,727	266	21,997							283	36,331	282				36,296		
Baddeck.....	17	17,754	22	19,988	509	47,876	506	45,215							526	65,630	528				65,203		
Iona.....					247	12,974	247	12,974							247	12,974	247				12,974		
New Campbellton.....					67	10,170	68	10,335							67	10,170	68				10,335		
Barrington Passage.....	15	613	15	487	711	41,715	715	31,909							726	42,328	730				32,396		
Clark's Harbour.....	30	605	33	302	499	21,538	503	19,548							529	22,143	536				19,850		
Port La Tour.....	2	28	2	28	104	4,582	104	4,221							106	4,610	106				4,249		
Bridgewater.....	12	12,774	23	16,782	127	10,659	119	7,881							139	23,433	142				24,663		
Canso.....	68	8,604	69	7,668	1,774	182,542	1,805	181,249							1,842	191,146	1,874				188,917		
Guy'sboro.....					8,846	412	42,254	404	33,045						412	42,254	411				41,891		
Isaac's Harbour.....	22	1,202	31	4,495	169	31,096	161	31,733							191	32,298	192				32,228		
Port Mulgrave.....			5	4,014	1,196	114,435	1,191	111,587							1,196	114,435	1,196				115,601		
Sherbrooke.....	36	28,607	42	34,227	68	13,499	60	8,140							104	42,106	102				42,367		

No. 20.—STATEMENT showing the Total Number and Tonnage of Vessels, Arrived and Departed, by Provinces, Ports and Outports—*Continued*

N° 20.—ÉTAT indiquant le nombre total et le tonnage de tous les navires entrés et sortis, par provinces, ports et ports secondaires—*Suite*

NOVA SCOTIA—Concluded—NOUVELLE-ÉCOSSE—Fin

	Sea going—Long-courriers						Coastwise—Cabotiers						Rivers and Lakes—Rivières et lacs						Total			
	Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés		Departed — Partis	
	Ves- sels Na- vires	Tons — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré
Digby.....	31	1,806	36	1,856	578	214,709	582	214,606											609	216,515	618	216,462
Bear River.....	16	30,854	17	31,148	501	43,351	101	43,128											117	74,205	118	74,276
Freepoint.....	20	786	20	452	287	31,160	291	31,625											307	31,946	311	32,077
Wesport.....	32	949	35	398	323	31,942	330	32,439											355	32,891	365	32,887
	1,525	4,453,321	1,760	4,718,297	2,309	695,465	2,090	139,689											3,834	5,148,986	3,850	4,857,986
Halifax.....	13	13,651	17	17,762	202	42,632	196	34,026											215	55,083	213	51,788
Sheet Harbour.....																						
Kentville.....	1	198					1	198											1	198	1	198
Canning.....	1	383			16	1,735	18	2,176											17	2,118	18	2,170
Port Williams.....	6	4,967	10	8,017	18	6,635	14	3,703											24	11,602	24	11,720
Wolfville.....	6	1,238			20	2,340	26	3,575											26	3,578	26	3,575
Liverpool.....	128	24,901	134	27,230	149	49,647	156	45,224											277	74,548	290	72,454
Lockeport.....	35	1,300	40	1,439	29	877	24	805											64	2,177	64	2,244
Lunenburg.....	312	31,805	361	32,418	276	30,324	264	31,455											588	62,219	625	63,873
Chester.....	29	4,431	28	433	140	3,352	142	3,424											169	3,783	170	3,857
La Have.....	34	4,480	3	4,809	213	21,643	209	21,316											247	26,091	247	26,116
Mahone Bay.....	6	614	2	104	53	3,346	55	3,673											59	3,960	57	3,777
Riverport.....	96	8,457	53	3,899	176	10,139	208	8,940											272	18,596	261	12,839
					41	1,002	41	1,002											41	1,002	41	1,002
New Glasgow.....																						
North Sydney.....	809	382,899	818	391,829	662	290,275	692	284,981											1,471	673,174	1,510	676,810
Little Bras D'or.....					170	8,430	170	8,430											170	8,430	170	8,430

Parishboro.....	96	37,981	113	49,574	458	53,967	446	41,482	.....	.....	.....	.....	554	91,948	559	91,056
Pictou.....	9	7,091	19	15,191	610	172,041	593	161,584	.....	.....	.....	.....	619	179,132	612	176,775
Port Hawkesbury.....	93	57,793	90	61,708	311	19,017	321	21,694	.....	.....	.....	.....	404	76,810	411	83,402
Shelburne.....	133	9,485	137	9,956	69	4,985	69	4,115	.....	.....	.....	.....	202	14,470	206	14,071
North East Harbour.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	224	4	224
Port Clyde.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	95	4,428	95	4,428
Sandy Point.....	95	6,963	96	6,646	61	3,000	61	3,359	.....	.....	.....	.....	156	9,963	157	10,005
Sydney.....	296	615,861	365	738,234	965	1,300,313	902	1,102,000	.....	.....	.....	.....	1,261	1,916,174	1,267	1,930,234
Glouce Bay.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36	1,643	36	1,643
Port Morien.....	91	38,524	112	69,385	307	91,663	294	58,457	.....	.....	.....	.....	398	130,393	406	127,842
.....	.....	.....	.....	.....	6	1,024	6	1,054	.....	.....	.....	.....	6	1,024	6	1,024
Truro.....	.....	.....	2	610	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	610
Weymouth.....	25	6,837	42	9,865	105	7,242	83	3,808	.....	.....	.....	.....	.....	.....	.....	.....
Meteghan River.....	16	2,294	7	410	51	4,293	69	5,294	.....	.....	.....	.....	130	14,079	125	13,673
Salmon River.....	.....	.....	.....	.....	2	62	2	62	.....	.....	.....	.....	2	6,587	2	6,587
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	62	2	62
Windsor.....	160	232,045	182	242,185	187	64,830	169	56,361	.....	.....	.....	.....	347	296,875	351	298,546
Hantsport.....	1	739	5	4,366	26	5,158	25	2,557	.....	.....	.....	.....	27	5,897	30	6,953
Matland.....	5	1,661	7	1,985	23	3,470	21	3,146	.....	.....	.....	.....	28	5,131	28	5,131
Yarmouth.....	392	437,206	355	353,698	461	34,470	507	39,492	.....	.....	.....	.....	853	471,676	862	393,190
Lower East Pubnico.....	66	3,174	62	3,005	157	5,114	158	5,140	.....	.....	.....	.....	223	8,288	220	8,145
Nova Scotia, Total.....	4,833	6,506,236	5,285	6,929,941	16,719	3,907,039	16,476	3,111,710	.....	.....	.....	.....	21,552	10,413,275	21,761	10,041,651

PRINCE EDWARD ISLAND—ÎLE DU PRINCE-ÉDOUARD

Charlottetown.....	29	29,021	58	63,176	610	177,058	588	151,953	.....	.....	.....	.....	639	206,079	646	215,129
Montague.....	17	856	26	1,682	62	3,113	53	2,305	.....	.....	.....	.....	79	3,969	79	3,988
Souris.....	6	1,112	5	284	159	51,298	162	52,912	.....	.....	.....	.....	165	52,350	167	53,146
Summerside.....	5	4,414	9	13,635	61	25,002	57	14,775	.....	.....	.....	.....	66	29,416	66	28,410
Alberton.....	.....	.....	.....	.....	1	21	5	210	.....	.....	.....	.....	1	21	5	210
Prince Edward Island, Total.....	57	35,403	98	78,727	893	256,432	865	222,156	.....	.....	.....	.....	950	291,835	963	300,883

No. 20.—STATEMENT showing the Total Number and Tonnage of all Vessels, Arrived and Departed, by Provinces
Ports and Outports—*Continued*

N° 20.—ÉTAT indiquant le nombre total et le tonnage de tous les navires entrés et sortis, par provinces, ports et ports
secondaires—*Suite*

NEW BRUNSWICK—NOUVEAU-BRUNSWICK

	Sea going—Long-courriers						Coastwise—Cabotiers						Rivers and Lakes—Rivières et lacs						Total	
	Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés	Departed — Partis
	Ves- sels	Tons register	Na- Tonnage	Ves- sels	Tons register	Na- Tonnage	Ves- sels	Tons register	Na- Tonnage	Ves- sels	Tons register	Na- Tonnage	Ves- sels	Tons register	Na- Tonnage	Ves- sels	Tons register	Na- Tonnage		
Bathurst.....	61	4,801	61	2,796	26	10,553	25	10,887	25	10,887	25	10,887	87	15,354	86	13,683	157	4,083	155	13,683
Caraquet.....	100	1,980	108	1,948	48	2,103	47	2,091	47	2,091	47	2,091	157	4,083	155	4,083	157	4,083	155	4,083
Shippegan.....	27	341	31	385	158	3,058	158	3,058	158	3,058	158	3,058	185	3,399	189	3,443	185	3,399	189	3,443
Campbellton.....	6	6,344	14	16,506	84	45,955	76	36,885	76	36,885	76	36,885	90	52,299	90	53,391	17	20,292	18	20,324
Dalhousie.....	2	1,729	3	1,176	15	18,563	15	19,148	15	19,148	15	19,148	17	20,292	18	20,324	17	20,292	18	20,324
Chatham.....	3	6,837	14	20,239	99	49,830	91	36,456	91	36,456	91	36,456	102	56,667	105	56,695	12	558	13	564
Buctouche.....	1	744	5	5,039	12	558	13	564	13	564	13	564	66	7,926	67	7,936	66	7,926	67	7,936
Richibucto.....					65	7,182	62	2,897	62	2,897	62	2,897								
Fredericton.....					10	3,960	10	3,960	10	3,960	10	3,960	10	3,960	10	3,960	10	3,960	10	3,960
Moncton.....	8	4,041	11	5,558	17	4,570	12	3,209	12	3,209	12	3,209	25	8,611	23	8,767	25	8,611	23	8,767
Hillsboro.....	13	11,066	16	11,599	3	1,533	3	1,533	3	1,533	3	1,533	16	12,599	16	11,599	16	12,599	16	11,599
Shediac.....					19	220	27	323	27	323	27	323	19	220	27	323	19	220	27	323
Newcastle.....			3	2,855	28	3,826	25	971	25	971	25	971	28	3,826	28	3,826	28	3,826	28	3,826
Sackville.....					1	74	2	106	2	106	2	106	1	74	2	106	1	74	2	106
Port Elgin.....							2	28	2	28	2	28								
St. Andrews.....	1,456	50,613	1,561	51,372	344	17,270	355	17,655	355	17,655	355	17,655	1,800	67,883	1,916	69,027	1,800	67,883	1,916	69,027
Campobello.....	992	39,899	885	53,085	254	42,191	307	30,197	307	30,197	307	30,197	1,246	82,000	1,192	84,183	1,246	82,000	1,192	84,183
Lord's Cove.....	847	12,446	794	12,623	92	3,748	97	2,630	97	2,630	97	2,630	383	16,104	381	15,253	383	16,104	381	15,253
North Head.....	478	36,780	462	35,212	205	8,986	219	9,242	219	9,242	219	9,242	683	45,772	681	44,454	683	45,772	681	44,454

No. 20.—STATEMENT showing the Total Number and Tonnage of all Vessels, Arrived and Departed, by Provinces
Ports and Outports—*Continued*

N° 20.—État indiquant le nombre total et le tonnage de tous les navires entrés et sortis, par provinces, ports et ports
secondaires—*Suite*

ONTARIO

	Sea going—Long-courriers						Coastwise—Cabottiers						Rivers and Lakes—Rivières et lacs						Total	
	Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis			Arrived — Arrivés			Departed — Partis				
	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré	Ves- sels Na- vires	Tons register — Tonnage enregistré		
Amherstburg.....					52	25,371	57	23,019	5,287	688,519	5,240	647,522	5,339	714,490	5,297	670,541				
Kingsville.....					209	44,191	209	45,590	373	2,813	372	2,784	582	47,004	581	48,374				
Leamington.....					378	82,678	376	61,520	85	2,433	85	1,042	433	83,111	461	62,562				
West Dock.....					210	45,990	210	44,889	197	20,701	197	13,153	407	66,691	407	58,042				
Belleville.....					48	4,581	48	6,488	67	60,812	67	58,905	115	65,393	115	65,393				
Bridgeburg.....					27	70	5	20	2,132	5,433	2,651	5,692	2,159	5,503	2,656	5,712				
Brockville.....					306	294,291	300	277,967	513	213,277	519	229,601	819	507,568	819	507,568				
Cobourg.....					14	6,837	15	8,650	710	2,323,495	708	2,308,201	724	2,330,332	723	2,316,851				
Collingwood.....					60	68,623	62	60,837	17	33,811	18	39,735	77	102,434	80	100,572				
Cornwall.....					137	92,422	133	89,533	5	1,137	7	2,533	142	93,559	140	92,066				
Aultsville.....					58	13,124	58	13,124					58	13,124	58	13,124				
Deseronto.....					15	1,669	15	1,669	1	4	1	4	16	1,673	16	1,673				
Fort Frances.....									17	266	17	266	17	266	17	266				
Rainy River.....					14	168	17	213	177	731	189	774	191	899	206	987				

Fort William	755	1,473,387	751	1,538,807	482	1,570,131	409	1,374,429	1,237	3,043,518	1,160	2,913,236
Gananoque												
Rockport	72	15,197	74	15,449	6,349	40,799	6,349	40,799	6,421	55,996	6,423	56,248
	60	13,680	60	13,680	11,378	11,024	1,339	10,712	1,438	24,704	1,399	24,392
Goderich												
Kincardine	58	123,536	33	61,675	33	17,816	68	125,429	91	141,352	101	187,104
Southampton	10	2,311	9	2,887	13	35,813	12	35,142	23	38,124	21	38,029
	4	129	4	118	2	2,903	2	2,903	6	3,032	6	3,021
Hamilton												
Dunnville	566	380,555	337	244,802	336	378,021	324	369,497	902	759,176	661	614,299
Port Maitland	3	32	4	117	1	4	4	4	4	36	5	121
	53	360	26	101	169	83,853	186	107,725	222	84,213	212	107,826
Kenora												
	18	226	14	169	172	5,386	158	5,351	190	5,612	172	5,520
Kingston												
	431	319,482	432	336,236	1,705	644,960	1,717	667,981	2,136	964,442	2,149	1,004,217
Midland												
Penetanguishene	143	238,732	127	164,874	101	285,467	125	420,935	244	534,199	252	585,809
	2	67	3	111	1	2,778	2	2,875	3	2,845	5	2,986
Morrisburg												
Iroquois	62	14,637	63	15,271	3	1,256	1	15	65	15,893	64	15,286
	58	13,224	58	13,224	11	790	11	790	69	14,014	69	14,014
Napanee												
	2	98	1	40	3	555	3	555	5	653	4	595
Niagara Falls												
	1,322	1,192,726	1,322	1,173,097	1,024	741,721	904	759,976	2,346	1,934,447	2,226	1,933,073
North Bay												
Moose Factory												
	1	1,115	1	1,115					1	1,115	1	1,115
Ottawa												
Smith Falls	241	31,735	247	33,009	5	664	6	719	246	32,399	253	33,728
	28	4,396	28	4,396					28	4,396	28	4,396
Owen Sound												
Warton	312	241,052	319	251,881	32	72,195	30	83,259	344	313,247	349	335,140
	3	438	10	1,038	5	9,754	5	9,754	8	10,192	15	10,792
Parry Sound												
Britt.	82	31,302	87	42,013	41	71,223	36	60,273	123	102,525	123	102,286
Depot Harbour	3	2,671	4	2,743	76	196,144	75	194,694	79	198,815	79	197,437
	9	15,206	2	4,058	130	284,735	137	303,498	139	299,941	139	307,556
Pictou												
	149	56,236	147	56,121	14	2,202	14	2,204	163	58,438	161	58,325

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MANITOBA

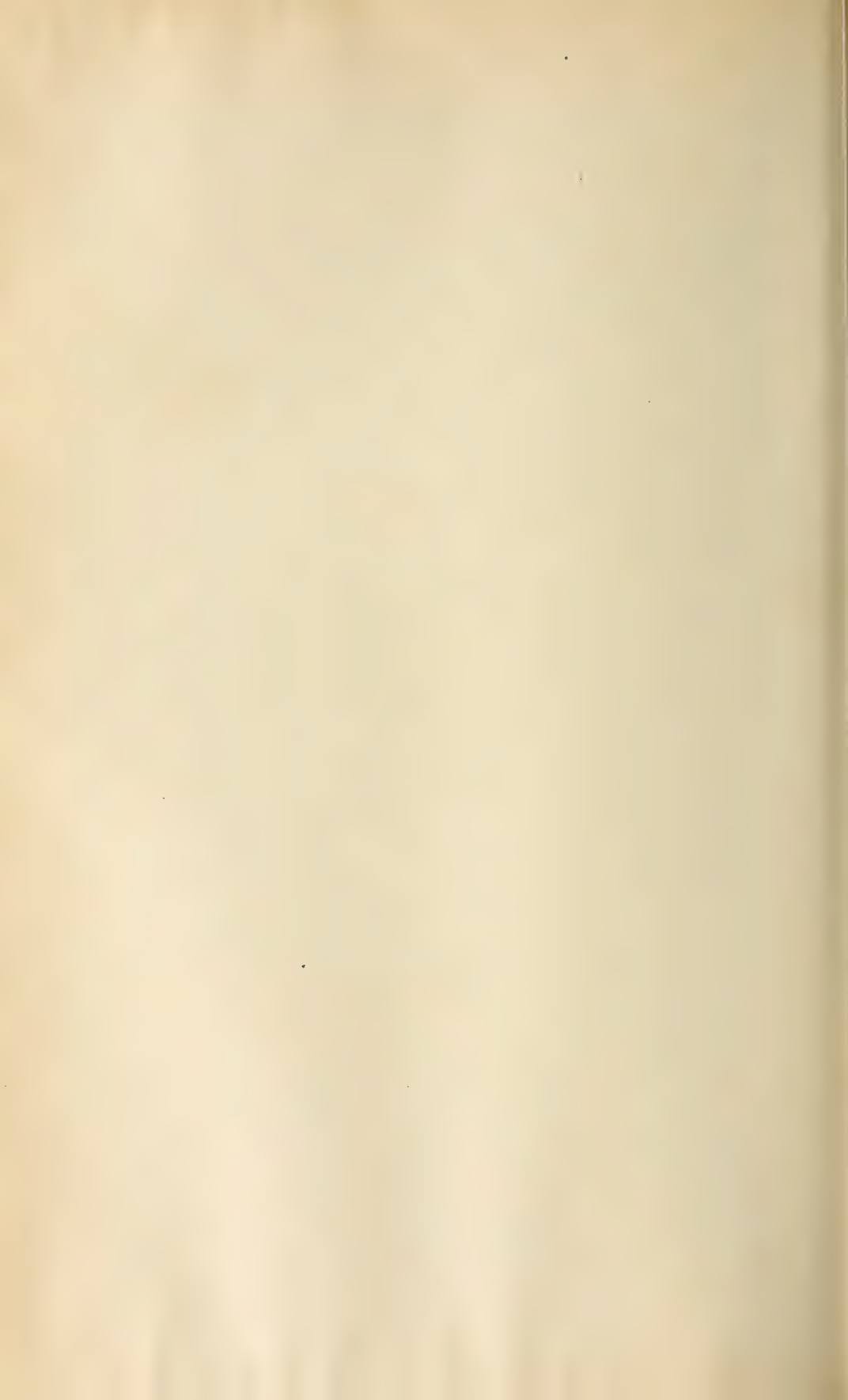
Winnipeg.....	1	1,115	1	1,115	1	64	1	64	2	1,179	2	1,179
York Factory.....												
Manitoba, Total.....	1	1,115	1	1,115	1	64	1	64	2	1,179	2	1,179

BRITISH COLUMBIA—COLOMBIE BRITANNIQUE

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RECAPITULATION—BY PROVINCES—PAR PROVINCES

Nova Scotia.....	4,833	6,506,236	5,285	6,929,941	16,719	3,907,039	16,476	3,111,710	21,552	10,413,275	21,761	10,041,651
Prince Edward Island.....	57	35,403	98	78,727	893	256,432	865	222,156	.....	.....	.....	.....	950	291,835	963	300,883
New Brunswick.....	4,888	1,509,466	4,708	1,196,930	3,501	645,347	3,722	941,602	.....	.....	.....	.....	8,389	2,154,813	8,430	2,138,532
Quebec.....	1,571	6,677,095	1,373	5,130,976	9,858	10,109,594	10,042	11,477,007	1,338	1,001,500	1,523	1,171,455	12,767	17,788,189	12,938	17,779,438
Ontario.....	.....	.....	.....	.....	13,690	13,310,650	13,067	12,376,011	53,344	16,540,934	54,013	17,716,322	67,034	29,851,554	67,080	29,092,333
Manitoba.....	1	1,115	1	1,115	1	61	1	61	.....	.....	.....	.....	2	1,179	2	1,179
British Columbia.....	10,233	12,426,451	10,429	12,498,777	37,310	15,295,993	37,796	15,797,909	43	1,794	43	1,818	47,556	27,724,148	48,259	28,298,504
Yukon.....	.....	.....	.....	.....	233	141,837	228	141,448	17	6,357	21	6,377	250	148,194	249	147,825
Grand Total.....	21,583	27,155,766	21,885	25,836,466	82,205	43,666,866	82,197	44,067,907	54,742	17,559,355	55,600	18,895,972	158,530	88,373,217	159,682	88,800,345



DEPARTMENT OF TRADE AND COMMERCE
OTTAWA, CANADA

MINISTER
Hon. JAMES MALCOLM

DEPUTY MINISTER
F. C. T. O'HARA

THIRTY-EIGHTH ANNUAL REPORT

OF THE

DEPARTMENT OF TRADE AND
COMMERCE

FOR THE

FISCAL YEAR ENDING MARCH 31, 1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

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*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief
of the Dominion of Canada.*

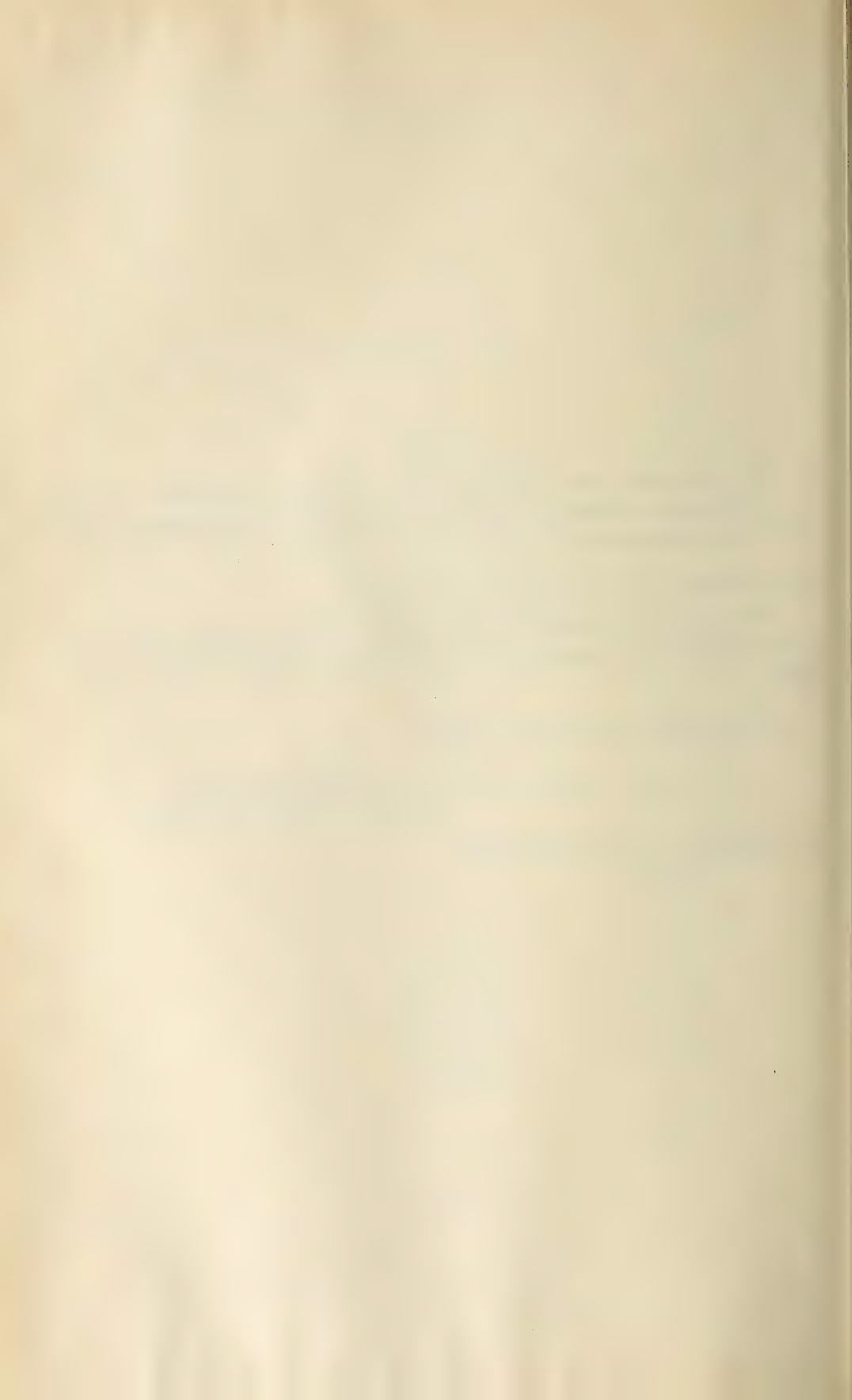
MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Report of the Department of Trade and Commerce for the fiscal year ended March 31, 1930.

All of which is respectfully submitted.

JAMES MALCOLM,
Minister of Trade and Commerce.

DEPARTMENT OF TRADE AND COMMERCE,
OTTAWA.



REPORT OF THE DEPUTY MINISTER

The Hon. JAMES MALCOLM, M.P.,
Minister of Trade and Commerce,
Ottawa.

OTTAWA, June 25, 1930.

SIR,—I have the honour to present herewith the Thirty-eighth Annual Report of the Department of Trade and Commerce, that is to say, for the fiscal year ended March 31, 1930.

Canada's Foreign Trade, 1929-30

In international trade, for the latest comparative year for worldwide statistics available, viz., the calendar year 1929, Canada, in face of a slight decline in imports and a very serious drop in exports, accounted for by a falling off in exports of grains, especially wheat, to Europe and the Orient, partly due to (1) lower yields and (2) restricted marketing policy, has maintained her relative position among the leading commercial countries of the world. In 1929 as in 1928 Canada occupied fifth position in imports, exports and aggregate trade, being exceeded as in 1928 by the United States, the United Kingdom, Germany and France. During the calendar year 1929 the relative position of the ten leading trading countries of the world was as under—

	Net Imports	Domestic Exports	Total Trade
	\$	\$	\$
1. United States.....	4,316,272,000	5,157,409,000	9,473,681,000
2. United Kingdom.....	5,410,998,000	3,550,501,000	8,961,499,000
3. Germany.....	3,197,432,000	3,208,754,000	6,406,186,000
4. France.....	2,296,414,000	1,972,851,000	4,269,265,000
5. Canada.....	1,273,037,000	1,182,412,000	2,455,479,000
6. British India.....	944,796,000	1,182,098,000	2,126,894,000
7. Japan.....	1,008,580,000	978,440,000	1,987,020,000
8. Netherlands.....	1,113,856,000	805,147,000	1,919,002,000
9. Italy.....	1,120,381,000	783,153,000	1,903,534,000
10. Belgium.....	993,110,000	902,028,000	1,895,138,000

Canada holds an enviable position among the leading nations of the world in the production and exportation of many staple products. In production of printing paper, nickel, asbestos and cobalt, she leads the world, occupies second position in the production of automobiles, in output of lead and gold she occupies third place and fifth position in the production of wheat, being exceeded by the United States, Russia, France and British India; while in exports she leads the world in exports of printing paper, nickel and asbestos, occupies second place in exports of automobiles, wheat and wheat flour and fourth place in exports of wood pulp, as well as occupying a very high place in the exports of many staple products as, lumber and timber, fish, copper, barley, cheese, raw furs, whiskey, meats, rubber tires, farm implements, pulpwood, cattle, raw gold, silver, lead, rye, oats, rubber footwear, leather, hides, aluminium, zinc, machinery,

fertilizers, milk and cream, fresh condensed milk, malt liquors, bran and shorts, fruits, coal, sugar, cereal foods, iron and steel products, vegetables, paper products and milled products.

ANALYSIS OF CANADA'S TRADE

Canada's total foreign trade during the year ended March 31, 1930, amounted to \$2,393,212,000, compared with a similar trade in 1929 valued at \$2,654,575,000 and in 1928 at \$2,359,555,000; showing a decrease compared with the year 1929 of \$261,363,000, or 9·8 per cent, but compared with the year 1928 an increase of \$33,657,000, or 1·4 per cent. Imports as well as exports show a decrease compared with the year 1929, the decrease in imports amounting to \$17,406,000, or 1·4 per cent, and in exports to \$243,958,000, or 17·6 per cent. During 1930 imports amounted to \$1,248,274,000 compared with an import trade in 1929 valued at \$1,265,679,000, and in 1928 at \$1,108,956,000; the decrease in imports in 1930 compared with 1929 amounting to \$17,406,000, or 1·4 per cent, but compared with 1928 an increase of \$139,317,000, or 12·5 per cent; while the exports (domestic and foreign combined) during the year 1930 were valued at \$1,144,938,000, compared with a similar trade in 1929 valued at \$1,388,896,000 and in 1928 at \$1,250,598,000; the decrease in 1930 compared with 1929 amounting to \$243,958,000, or 17·6 per cent, and compared with 1928 to \$105,660,000, or 8·4 per cent. Canada's domestic exports in 1930 amounted to \$1,120,258,000, in 1929 to \$1,363,709,000, and in 1928 to \$1,228,349,000; the decrease in 1930 compared with 1929 amounting to \$243,451,000, or 17·8 per cent, and compared with 1928 to \$108,091,000, or 8·8 per cent.

The decrease in the exports was mainly accounted for by the falling off in the export of grains, particularly wheat, to the United Kingdom and continental Europe, due partly to lower yields, but also reflecting temporary marketing policies as well. If the exports of barley, flaxseed, oats, rye, wheat and wheat flour are eliminated from the Dominion's domestic exports for 1929 and 1930, it will be noted that the exports of "all other commodities" show an increase for the year 1930 over 1929 of \$23,892,074. The particulars are set forth in the following table:—

CANADA'S DOMESTIC EXPORTS, LESS EXPORTS OF BARLEY, FLAXSEED, OATS, RYE, WHEAT AND WHEAT FLOUR

	1929	1930	Increase (+) Decrease (-)
	\$	\$	\$
Barley.....	25,743,971	10,388,735	(-) 15,355,236
Flaxseed.....	5,745,397	1,732,087	(-) 4,013,310
Oats.....	10,241,938	4,055,855	(-) 6,186,083
Rye.....	10,809,020	1,451,640	(-) 9,357,380
Wheat.....	428,524,326	215,753,475	(-) 212,770,851
Wheat flour.....	65,117,779	45,457,195	(-) 19,660,584
Total above 6 commodities.....	546,182,431	278,838,987	(-) 267,343,444
Total domestic exports.....	1,363,709,672	1,120,258,302	(-) 243,451,370
Total exports of "all other commodities".....	817,527,241	841,419,315	(+) 23,892,074

The statistics in the following table indicate the trend of Canadian trade from 1914 to 1930, (a) with All Countries; (b) with the United Kingdom; and (c) with the United States.

SUMMARY OF TREND OF CANADIAN TRADE, 1914 TO 1930

(Values in Millions of Dollars)

Years ended March 31	Imports into Canada				Exports from Canada			Excess of Imports (i) Exports (e)	Percentage relation of Exports to Imports
	Dutiable Goods	Free Goods	Total Imports	Per Cent Free	Canadian Produce	Foreign Produce	Total Exports		
(a) WITH ALL COUNTRIES									
1914.....	410.3	208.9	619.2	33.7	431.6	23.8	455.4	(i) 163.8	73.5
1915.....	279.8	176.1	455.9	38.6	409.4	52.0	461.4	(e) 5.5	101.2
1916.....	289.4	218.8	508.2	43.0	741.6	37.7	779.3	(e) 271.1	153.3
1917.....	461.7	384.7	846.4	45.4	1,151.4	27.8	1,179.2	(e) 332.8	139.3
1918.....	542.3	421.2	963.5	43.7	1,540.0	46.1	1,586.1	(e) 622.6	164.6
1919.....	526.5	393.2	919.7	42.7	1,216.4	52.3	1,268.7	(e) 349.0	137.9
1920.....	693.6	370.9	1,064.5	34.8	1,239.5	47.1	1,286.6	(e) 222.1	120.9
1921.....	847.5	392.6	1,240.1	31.6	1,189.2	21.2	1,210.4	(i) 29.7	97.6
1922.....	495.6	252.2	747.8	33.7	740.2	13.7	753.9	(e) 6.1	100.8
1923.....	537.3	265.3	802.6	33.0	931.5	13.8	945.3	(e) 142.7	117.7
1924.....	591.3	302.1	893.4	33.8	1,045.4	13.4	1,058.8	(e) 165.4	118.5
1925.....	516.0	280.9	796.9	35.1	1,069.1	12.3	1,081.4	(e) 284.5	135.7
1926.....	583.0	344.3	927.3	37.1	1,315.4	13.3	1,328.7	(e) 401.4	143.1
1927.....	659.9	371.0	1,030.9	36.0	1,252.2	15.4	1,267.6	(e) 236.7	123.0
1928.....	710.0	398.9	1,108.9	36.0	1,228.2	22.2	1,250.4	(e) 142.5	112.8
1929.....	821.1	444.6	1,265.7	35.1	1,363.7	25.2	1,388.9	(e) 123.2	109.7
1930.....	819.2	429.0	1,248.2	34.4	1,120.2	24.7	1,144.9	(i) 103.3	91.7

(b) WITH THE UNITED KINGDOM

1914.....	102.4	29.7	132.1	22.5	215.2	7.1	222.3	(e) 90.2	167.5
1915.....	68.0	22.1	90.1	24.5	186.6	25.1	211.7	(e) 121.6	234.9
1916.....	52.0	25.4	77.4	32.8	451.9	11.2	463.1	(e) 385.7	598.3
1917.....	75.5	31.6	107.1	29.5	742.1	13.9	756.0	(e) 648.9	705.9
1918.....	58.0	23.3	81.3	28.6	845.5	15.6	861.1	(e) 779.8	1,059.1
1919.....	50.0	23.0	73.0	31.5	540.7	20.1	560.8	(e) 487.8	768.2
1920.....	93.2	33.1	126.3	26.2	489.2	6.8	496.0	(e) 369.7	392.7
1921.....	170.1	43.8	213.9	20.5	312.8	1.4	314.2	(e) 100.3	146.9
1922.....	95.1	22.0	117.1	18.8	299.4	1.0	300.4	(e) 183.3	256.5
1923.....	116.2	25.1	141.3	17.7	379.1	0.8	379.9	(e) 238.6	268.8
1924.....	126.1	27.5	153.6	17.8	360.1	1.1	361.2	(e) 207.6	235.1
1925.....	124.7	26.4	151.1	17.5	395.9	1.3	397.2	(e) 246.1	262.8
1926.....	133.1	30.6	163.7	18.6	508.2	1.1	509.3	(e) 345.6	311.1
1927.....	135.0	28.9	163.9	17.6	446.9	1.1	448.0	(e) 284.1	273.3
1928.....	150.1	35.8	185.9	19.1	410.7	2.1	412.8	(e) 237.6	222.1
1929.....	154.4	39.6	194.0	20.4	429.7	1.9	431.6	(e) 237.6	222.4
1930.....	148.6	40.5	189.1	21.3	281.9	1.3	283.2	(e) 94.1	149.7

(c) WITH THE UNITED STATES

1914.....	249.5	146.8	396.3	37.0	163.4	13.6	177.0	(i) 219.3	44.6
1915.....	168.6	128.5	297.1	43.2	173.3	13.0	186.3	(i) 110.8	62.7
1916.....	199.5	171.4	370.9	46.2	201.1	15.6	216.7	(i) 154.2	58.4
1917.....	332.0	333.3	665.3	50.1	280.6	10.0	290.6	(i) 374.7	43.7
1918.....	429.3	363.6	792.9	45.8	417.2	23.6	440.8	(i) 352.1	55.6
1919.....	416.5	333.7	750.2	44.5	454.9	22.8	477.7	(i) 272.5	63.7
1920.....	499.7	301.4	801.1	37.6	464.0	37.1	501.1	(i) 300.5	62.5
1921.....	544.0	312.2	856.2	36.5	542.3	18.4	560.7	(i) 395.0	65.5
1922.....	312.1	203.9	516.0	39.5	292.6	11.5	304.1	(i) 211.9	58.9
1923.....	332.2	208.8	541.0	38.6	369.1	11.2	380.3	(i) 160.7	70.3
1924.....	355.9	245.3	601.2	40.8	430.7	10.9	441.6	(i) 159.6	73.4
1925.....	287.1	222.7	509.8	43.7	417.4	9.8	427.2	(i) 82.6	83.8
1926.....	338.0	270.7	608.6	44.5	474.9	11.0	485.9	(i) 122.7	79.7
1927.....	392.7	294.3	687.0	42.9	466.4	12.9	479.3	(i) 207.7	69.7
1928.....	416.0	303.4	719.4	42.1	478.0	18.6	496.6	(i) 222.8	69.0
1929.....	523.8	344.2	868.0	39.6	499.6	21.7*	521.3	(i) 346.7	60.1
1930.....	523.3	324.1	847.4	38.2	515.0	21.6	536.6	(i) 310.8	63.3

CANADA'S TRADE BY COUNTRIES, 1929-30

The imports from foreign countries during the fiscal year 1930 were valued at \$995,570,000, and from the British Empire at \$252,704,000; the decrease in 1930 compared with 1929, in the case of foreign countries being \$12,690,000, and of the British Empire \$4,715,000; while the exports of Canadian produce to foreign countries amounted to \$740,516,000, and to the British Empire to \$379,742,000, the exports to foreign countries showing a decrease of \$87,067,000, and to the British Empire a decrease of \$156,385,000. An analysis of Canada's exports by countries demonstrates that the decrease occurred chiefly in the exports to those countries that purchase large quantities of grain, especially wheat, from Canada. From 1929 to 1930 imports from foreign countries, except the United States, increased \$7,872,000, and from the British Empire, except the United Kingdom, \$148,000, whereas the exports to foreign countries, except the United States, from 1929 to 1930, decreased \$102,413,000, while the exports to the British Empire, except the United Kingdom, during the same period decreased only \$8,493,000. The trade of Canada with the United States in 1930 amounted to \$1,362,408,000, or 57 per cent of Canada's total trade with the world. In 1930 imports from the United States were valued at \$847,450,000, and domestic exports at \$514,958,000, imports showing a decrease of \$20,562,000, and exports an increase of \$15,346,000. The United States, since the year 1882, has supplied Canada with the largest amount of her total imports, the proportion for the year 1930 amounting to 67.9 per cent, while in exports she has recently moved into first position in Canada's export trade, taking during the year 1930, 45.9 per cent of her total exports. The trade of Canada with the United Kingdom comes next in order of importance. Imports from the United Kingdom in 1930 amounted to \$189,178,000, and domestic exports to \$281,838,000, the decrease in imports amounting to \$4,863,000 compared with 1929, and in exports to \$147,892,000. The decrease in exports to the United Kingdom occurred chiefly in exports of grains and dairy products, the decrease in wheat amounting to \$120,210,000; barley, \$9,992,000; cheese, \$6,414,000; rye, \$5,082,000; and oats \$2,590,000. Imports from Australia, Belgium, British South Africa, Germany, Italy and the Netherlands, show increases, while exports to these countries show decreases, the decrease in exports being mainly due to falling off in grain exports, chiefly wheat. Imports in order of importance were: Germany, \$21,505,000, increase \$707,000; Belgium, \$13,019,000, increase \$1,004,000; the Netherlands, \$9,431,000, increase \$414,000; Italy, \$4,964,000, increase \$704,000; Australia, \$4,211,000, increase \$726,000; and British South Africa, \$824,000, increase \$544,000; while the exports to these identical countries in order of importance were: Germany, \$25,344,000, decrease \$21,365,000; Belgium, \$21,093,000; decrease \$5,608,000; Australia, \$16,323,000, decrease \$3,147,000; the Netherlands, \$15,945,000, decrease \$28,422,000; Italy, \$11,387,000, decrease \$11,638,000; and British South Africa, \$10,918,000, decrease \$1,314,000. The trade of Canada with the following countries shows decreases in both imports and exports, viz.: Imports—British India, \$9,033,000, decrease \$1,334,000; China, \$2,973,000, decrease \$122,000; and Japan, \$12,537,000, decrease \$384,000; Exports—British India, \$9,116,000, decrease \$2,742,000; China, \$16,528,000, decrease \$7,715,000; and Japan, \$30,476,000, decrease \$11,624,000. Of the other more important trading countries, imports from France show a decrease in imports but increases in exports, while the trade with Argentina and New Zealand show substantial increase in both imports and exports.

For further information as to the trade with other principal countries, see the following table.

CANADA'S TRADE WITH PRINCIPAL COUNTRIES, 1929-30

NOTE:—Countries arranged in order of importance of total trade. Values in Thousands of Dollars.

Countries	Imports from 1929-30	Domestic Exports to, 1929-30	Total Trade, 1929-30	Increase (+) or Decrease (—) 1929-30 compared with 1928-29		
				Imports	Exports	Total
United States.....	847,450	514,958	1,362,408	(—) 20,562	(+) 15,346	(—) 5,216
United Kingdom.....	189,178	281,838	471,016	(—) 4,863	(—) 147,892	(—) 152,755
Germany.....	21,505	25,344	46,849	(+) 707	(—) 21,365	(—) 20,658
Japan.....	12,537	30,476	43,013	(—) 384	(—) 11,624	(—) 12,008
France.....	25,158	16,507	41,665	(+) 1,058	(+) 376	(+) 682
New Zealand.....	16,283	19,166	35,449	(+) 3,512	(+) 1,808	(+) 5,320
Belgium.....	13,019	21,693	34,712	(+) 1,004	(—) 5,608	(—) 4,604
Argentina.....	10,232	19,207	29,439	(+) 2,804	(+) 4,714	(+) 7,518
Netherlands.....	9,431	15,945	25,376	(+) 414	(—) 28,422	(—) 28,008
Australia.....	4,211	16,323	20,534	(+) 726	(—) 3,147	(—) 2,421
China.....	2,973	16,528	19,501	(—) 122	(—) 7,715	(—) 7,837
British India.....	9,033	9,116	18,149	(+) 1,334	(—) 2,742	(—) 4,076
Italy.....	4,964	11,387	16,351	(+) 704	(—) 11,638	(—) 10,934
Newfoundland.....	2,380	12,178	14,558	(+) 133	(+) 1,017	(+) 884
British South Africa.....	824	10,918	11,742	(+) 544	(+) 1,314	(+) 770
Jamaica.....	5,194	5,139	10,333	(+) 404	(—) 127	(+) 277
Peru.....	7,492	1,795	9,287	(+) 3,044	(+) 484	(+) 3,528
Colombia.....	7,253	1,643	8,896	(+) 404	(—) 154	(—) 250
Switzerland.....	7,315	1,197	8,512	(—) 602	(+) 713	(+) 111
Cuba.....	3,510	4,256	7,766	(+) 1,394	(—) 187	(—) 1,581
Spain.....	2,784	4,503	7,287	(+) 81	(—) 1,201	(—) 1,120
Sweden.....	2,257	4,678	6,935	(+) 72	(—) 88	(—) 16
Trinidad and Tobago.....	2,587	3,998	6,585	(—) 789	(—) 156	(—) 945
Barbados.....	4,675	1,325	6,000	(—) 524	(—) 357	(—) 881
Brazil.....	1,688	4,292	5,980	(—) 38	(—) 1,581	(—) 1,619
St. Pierre and Miquelon.....	64	5,859	5,923	(+) 8	(+) 3,130	(+) 3,138
Other British West Indies.....	1,206	4,568	5,774	(—) 872	(—) 88	(—) 960
Greece.....	374	5,387	5,761	(+) 3	(—) 6,464	(—) 6,461
British Guiana.....	3,982	1,661	5,643	(—) 891	(—) 578	(—) 1,469
Norway.....	1,105	3,675	4,780	(+) 115	(—) 3,760	(—) 3,645
Russia.....	910	3,738	4,648	(+) 673	(+) 1,281	(+) 1,954
Denmark.....	179	4,109	4,288	(+) 26	(—) 1,872	(—) 1,846
Czecho-Slovakia.....	3,792	479	4,271	(+) 494	(—) 1,225	(—) 731
Fiji.....	3,677	431	4,108	(+) 2,021	(+) 101	(+) 1,920
British East Africa.....	1,982	1,707	3,689	(+) 1,684	(+) 139	(+) 1,823
Mexico.....	750	2,583	3,333	(—) 420	(—) 93	(—) 513
Hong Kong.....	1,259	2,000	3,259	(—) 144	(—) 837	(—) 981
Ceylon.....	2,600	486	3,086	(+) 71	(—) 176	(—) 105
Irish Free State.....	268	2,711	2,979	(—) 299	(—) 1,434	(—) 1,225
Chile.....	667	2,280	2,947	(+) 288	(—) 123	(—) 165
Total above 40 countries.....	1,236,748	1,096,084	2,332,832	(—) 18,160	(—) 232,859	(—) 251,019
Total, All Countries.....	1,248,274	1,120,258	2,368,532	(—) 17,405	(—) 243,452	(—) 260,857
British Empire.....	252,704	379,742	632,446	(—) 4,715	(—) 156,385	(—) 161,100
Foreign Countries.....	995,570	740,516	1,736,086	(—) 12,690	(—) 87,067	(—) 99,757

ANALYSIS OF CANADA'S COMMODITY IMPORTS, 1929-30

The decrease in the imports, 1930, compared with 1929, amounting to \$17,-406,000, occurred in four of the nine main groups. The decrease in these main groups of Agricultural and Vegetable Products, Animals and Animal Products, Fibres, Textiles and Textile Products and Iron and Its Products amounted to \$58,824,000, while the increase in the main groups of Wood, Wood Products and Paper, Non-Ferrous Metals and Their Products, Non-Metallic Minerals and Their Products, Chemicals and Allied Products, and Miscellaneous Commodities, totalled \$41,418,000. The imports, arranged in order of importance, with increase or decrease, 1930 compared with 1929, were: (1) Iron and Its Products, \$316,-879,000, decrease \$29,737,000; (2) Agricultural and Vegetable Products, \$227,-049,000, decrease \$6,081,000; (3) Non-Metallic Minerals and Their Products,

\$186,496,000, increase \$19,532,000; (4) Fibres, Textiles and Textile Products, \$185,241,000, decrease \$21,198,000 (5) Non-Ferrous Metals and Their Products, \$87,950,000, increase \$12,512,000; (6) Miscellaneous Commodities, \$73,946,000, increase \$5,454,000; (7) Animals and Animal Products, \$69,854,000, decrease \$1,808,000; (8) Wood, Wood Products and Paper, \$60,951,000, increase \$1,736,000; and (9) Chemicals and Allied Products, \$39,908,000, increase \$2,184,000.

The principal imports under the Agricultural and Vegetable Products group (valued at \$227,049,000), with increase or decrease, 1930 compared with 1929, were: Alcoholic beverages, \$45,026,000, decrease \$3,818,000; fresh fruits, \$23,779,000, decrease \$2,137,000; sugar for refining, \$22,925,000, decrease \$3,481,000; crude rubber, \$14,711,000, decrease \$2,699,000; corn, \$14,149,000, increase \$357,000; vegetable oil, \$12,244,000, increase \$1,435,000; tea, \$10,695,000, decrease \$1,058,000; fresh vegetables, \$8,274,000, increase \$1,336,000; raw tobacco, \$6,472,000, decrease \$295,000; raw coffee, \$5,925,000, increase \$68,000; dried fruits, \$5,809,000, decrease \$190,000; nuts, \$5,095,000, decrease \$80,000; prepared fruits, \$4,227,000, increase \$476,000; cocoa and chocolate, \$3,651,000, decrease \$151,000; and gums and resins, \$3,432,000, increase \$83,000. Under the Animals and Animal Products group (valued at \$69,854,000) the chief imports, with increase or decrease, 1930 as compared with 1929, were: Butter, \$14,472,000, increase \$5,443,000; furs, \$11,954,000, decrease \$5,212,000; raw hides, \$8,402,000, decrease \$4,027,000; meats, \$7,599,000, increase \$1,694,000; unmanufactured leather, 5,920,000, decrease \$90,000; manufactured leather, \$5,618,000, increase \$629,000; fish, \$3,475,000, increase \$23,000; animals, living, \$2,803,000, decrease \$302,000; and grease for soap, \$1,251,000, increase \$199,000. The main imports under the Fibres, Textiles and Textile Products group (valued at \$185,241,000), with increase or decrease, 1930 compared with 1929, were: woollen goods, \$29,388,000, decrease \$4,387,000; cotton goods, \$28,555,000, decrease \$2,343,000; raw cotton, \$21,682,000, decrease \$6,522,000; flax, hemp and jute, \$14,717,000, decrease \$1,027,000; silk fabrics, \$11,112,000, decrease \$3,425,000; raw silk, \$8,361,000, increase \$1,813,000; woollen yarn, \$5,870,000, increase \$137,000; silk clothing, \$5,074,000, increase \$38,000; raw wool, \$4,307,000, decrease \$1,484,000; noils and tops, \$3,834,000, decrease \$1,989,000; cotton yarn, \$3,828,000, decrease \$364,000; manila and sisal grass, \$3,823,000, decrease \$1,944,000; wool carpets, \$3,245,000, decrease \$62,000; hats and caps, \$2,908,000, decrease \$321,000; and binder twine, \$1,845,000, decrease \$1,067,000.

Under the main group of Wood, Wood Products and Paper (valued at \$60,951,000) the principal imports, with increase or decrease, 1930 compared with 1929, were: Books and printed matter, \$18,131,000, increase \$1,591,000; unmanufactured wood, \$15,348,000, decrease \$1,291,000; paper, \$14,764,000, increase \$1,115,000; and manufactured wood, \$12,708,000, increase \$321,000. The chief imports under the Iron and Its Products group (valued at \$316,879,000), with increase or decrease, 1930 compared with 1929, were: Machinery, \$69,118,000, increase \$8,855,000; rolling mill products, \$61,894,000, increase \$1,720,000; automobile parts, \$35,747,000, decrease \$20,014,000; automobiles, \$34,465,000, decrease \$10,217,000; farm implements, \$30,075,000, decrease \$10,217,000; engines and boilers, \$15,146,000, decrease \$4,161,000; tubes and pipes, \$5,948,000, increase \$1,251,000; iron ore, \$5,021,000, increase \$630,000; hardware and cutlery, \$4,952,000, increase \$177,000; wire, \$3,659,000, decrease \$147,000; tools, \$3,192,000, decrease \$3,000; and pigs and ingots, \$2,717,000, decrease \$426,000. Under the main group of Non-Ferrous Metals and Their Products (value \$87,950,000) the principal imports with increase or decrease, 1930 compared with 1929, were: Electric apparatus, \$37,611,000, increase \$10,836,000; copper, \$14,899,000 increase

\$1,831,000; brass, \$7,000,000, increase \$245,000; aluminium \$6,059,000, decrease \$311,000; clocks and watches, \$3,496,000, decrease \$80,000; and tin in ingots, \$2,488,000, decrease \$499,000.

The imports under the Non-Metallic Minerals and Their Products group (valued at \$186,496,000), with increase or decrease, 1930 compared with 1929, were: Coal, \$56,812,000, increase \$1,152,000; crude petroleum, \$50,951,000, increase \$13,291,000; refined petroleum, \$25,180,000, increase \$1,508,000; clay and products, \$12,254,000, increase \$1,837,000; glass, \$10,454,000, increase \$736,000; stone and its products, \$8,703,000, increase \$165,000; coke, \$6,403,000, decrease \$243,000; and diamonds, unset, \$3,194,000, increase \$12,000. Under the Chemicals and Allied Products group (value \$39,903,000) the chief imports, with increase or decrease, 1930 compared with 1929, were: Paints and varnishes, \$5,959,000, increase \$104,000; fertilizers, \$5,034,000, increase \$186,000; soda and compounds, \$4,411,000, increase \$745,000; drugs and medicines, \$3,809,000, increase \$82,000; dyeing and tanning materials, \$3,547,000, decrease \$435,000; and soap, \$1,316,000, increase \$154,000. The imports under the Miscellaneous Commodities group (valued at \$73,946,000), with increase or decrease, 1930 compared with 1929, were: Settlers' effects, \$11,181,000, increase \$790,000; containers (outside coverings), \$6,286,000, increase \$806,000; scientific equipment, \$4,957,000, increase \$498,000; post office parcels, \$3,778,000, increase \$140,000; articles for exhibition, \$3,491,000, increase \$195,000; musical instruments, \$3,131,000, increase \$305,000; jewellery, \$2,436,000, decrease \$169,000; toys, \$2,365,000, increase \$114,000; express parcels, \$2,123,000, increase \$138,000; films, \$1,605,000, increase \$737,000; vessels, \$1,372,000, increase, \$316,000; and pocket books, etc., \$1,344,000, increase \$55,000.

For further information respecting Canada's imports in principal commodities, with proportions received from the United Kingdom and the United States, see the following table:—

CANADA'S IMPORTS BY MAIN GROUPS, 1929-30

NOTE:—Values in Thousands of Dollars.

Main Groups	Total Imports 1929-30	Imports from		Increase (+) or Decrease (—) 1929-30 compared with 1928-29		
		United Kingdom	United States	Total	United Kingdom	United States
Agricultural and Vegetable Products.....	227,049	51,279	98,752	(—) 6,081	(—) 2,392	(—) 4,915
Animals and Animal Products.....	69,854	5,288	37,393	(—) 1,808	(—) 375	(—) 5,261
Fibres, Textiles and Textile Products.....	185,241	68,244	71,998	(—) 21,198	(—) 8,778	(—) 9,892
Food, Wood Products and Paper and Its Products.....	60,951	5,251	51,736	(+) 1,736	(+) 316	(+) 1,172
Non-Ferrous Metal Products.....	316,879	21,638	284,166	(—) 29,737	(+) 2,641	(—) 32,923
On-Metallic Mineral Products.....	87,950	7,504	73,739	(+) 12,512	(+) 850	(+) 11,634
Chemicals and Allied Products.....	186,496	13,602	149,294	(+) 19,532	(+) 1,501	(+) 14,140
Miscellaneous Commodities.....	39,907	5,429	26,985	(+) 2,184	(+) 465	(+) 782
	73,946	10,943	53,387	(+) 5,454	(+) 909	(+) 4,701
Total Imports.....	1,248,273	189,178	847,450	(—) 17,406	(—) 4,863	(—) 20,562
Articulate goods.....	819,230	148,643	523,305	(—) 1,845	(—) 5,814	(—) 541
Inert goods.....	429,043	40,535	324,145	(—) 15,561	(+) 951	(—) 20,021
Duty collected on Imports.....	199,012	37,846	134,048	(—) 1,468	(—) 2,135	(+) 11,269

ONE HUNDRED COMMODITIES IMPORTED INTO CANADA, 1929-30

NOTE:—Commodities arranged in order of importance. Values in Thousands of Dollars.

Commodity	Total Imports 1929-30	Imports from		Increase (+) or Decrease (-) 1929-30 compared with 1928-29					
		United Kingdom	United States	Total	United Kingdom	United States			
Machinery.....	69,118	4,557	62,693	(+)	8,855	(+)	580	(+)	8,079
Coal.....	56,812	5,308	50,819	(+)	1,152	(+)	1,149	(-)	593
Crude petroleum.....	50,951		37,938	(+)	13,291	(-)	5	(+)	10,974
Spirits and wines.....	44,485	37,071	3	(-)	3,864	(-)	2,838	(+)	1
Electric apparatus.....	37,611	2,727	34,177	(+)	10,836	(+)	800	(+)	9,766
Automobile parts.....	35,747	53	35,537	(-)	20,014	(+)	12	(-)	19,930
Automobiles.....	34,465	446	34,001	(-)	8,505	(+)	108	(-)	8,617
Plates and sheets (iron).....	31,756	5,572	25,356	(+)	1,090	(+)	288	(+)	675
Farm implements.....	30,075	169	29,339	(-)	10,217	(+)	27	(-)	10,488
Green fruits.....	23,779	289	20,726	(-)	2,137	(+)	205	(-)	3,982
Sugar for refining.....	22,925		1	(-)	3,482	(-)		(-)	398
Raw cotton.....	21,682	73	21,566	(-)	6,522	(+)	70	(-)	6,604
Gasoline.....	18,869		18,868	(+)	831	(+)		(+)	834
Books and printed matter.....	18,131	2,604	14,720	(+)	1,591	(+)	155	(+)	1,338
Engines and boilers.....	15,146	1,236	13,845	(-)	4,162	(+)	117	(-)	4,188
Copper and its products.....	14,899	489	14,365	(+)	1,831	(+)	191	(+)	1,649
Structural iron and steel.....	14,789	825	13,005	(+)	2,961	(+)	560	(+)	2,186
Paper.....	14,764	1,666	11,592	(+)	1,115	(+)	134	(+)	914
Raw rubber.....	14,711	3	14,050	(-)	2,699	(-)	72	(-)	2,399
Corn.....	14,149		8,786	(+)	357	(-)		(-)	560
Silk fabrics and velvets.....	13,093	467	2,434	(-)	3,522	(+)	233	(-)	235
Wood, manufactured.....	12,708	931	10,590	(+)	321	(-)	2	(+)	332
Clay and its products.....	12,254	4,450	5,576	(+)	1,837	(+)	492	(+)	1,097
Vegetable oils.....	12,244	2,629	7,253	(+)	1,435	(+)	1,173	(-)	31
Raw and dressed furs.....	11,658	774	8,876	(-)	5,248	(-)	301	(-)	4,172
Settlers' effects.....	11,181	821	10,113	(+)	790	(+)	61	(+)	770
Planks and boards.....	11,103	39	10,991	(-)	1,221	(+)	26	(-)	1,247
Worsted and serges.....	10,909	8,795	89	(-)	2,819	(-)	2,440	(+)	29
Tea.....	10,694	4,819	38	(-)	1,058	(-)	464	(+)	13
Glass and glassware.....	10,454	1,375	5,081	(+)	736	(+)	149	(+)	220
Coloured or printed cottons.....	9,418	4,027	4,362	(-)	871	(-)	1,043	(+)	42
Bars and rails (iron).....	8,923	1,050	6,809	(-)	2,356	(+)	28	(-)	2,591
Stone and its products.....	8,703	566	7,403	(+)	165	(-)	40	(+)	96
Raw hides.....	8,402	129	6,268	(-)	4,027	(+)	13	(-)	3,018
Raw silk.....	8,361		5,600	(+)	1,813	(+)	1	(+)	1,072
Fresh vegetables.....	8,274	75	7,505	(+)	1,336	(-)	6	(+)	1,587
Meats.....	7,599	252	5,635	(+)	1,694	(-)	26	(+)	1,352
Brass and its products.....	7,000	850	5,712	(+)	245	(+)	202	(+)	13
Jute cloth or canvas.....	6,490	1,342	164	(-)	1,677	(-)	812	(-)	230
Raw tobacco.....	6,472	2	5,364	(-)	295	(-)	54	(-)	255
Coke.....	6,403	63	6,319	(-)	245	(-)	96	(-)	129
Containers (outside coverings).....	6,286	2,689	2,225	(+)	806	(+)	538	(+)	179
Grey and white cottons.....	6,190	1,685	4,425	(-)	615	(-)	215	(-)	403
Paints and varnishes.....	5,959	934	4,220	(+)	104	(+)	35	(+)	84
Tubes and pipe (iron).....	5,948	475	5,191	(+)	1,251	(+)	60	(+)	1,307
Raw coffee.....	5,925	620	17	(+)	68	(-)	210	(+)	6
Leather unmanufactured.....	5,920	1,171	4,680	(-)	90	(-)	110	(+)	42
Woollen yarns.....	5,870	5,666	77	(+)	137	(+)	106	(+)	73
Dried fruits.....	5,809	365	3,766	(-)	190	(+)	35	(-)	362
Leather, manufactured.....	5,618	1,278	2,673	(+)	629	(-)	5	(+)	75
Rubber, manufactured.....	5,310	572	4,534	(+)	366	(-)	48	(+)	348
Silk clothing.....	5,074	428	3,303	(+)	38	(-)	48	(+)	291
Woollen clothing.....	5,067	4,207	608	(-)	128	(-)	107	(+)	3
Seeds.....	5,061	343	1,323	(+)	2,819	(-)	17	(+)	312
Fertilizers.....	5,034	52	3,305	(+)	186	(+)	40	(-)	354
Iron ore.....	5,021		3,996	(+)	630	(-)		(+)	571
Scientific and educational equip- ment.....	4,957	365	3,992	(+)	498	(+)	26	(+)	354
Hardware and cutlery.....	4,952	1,117	3,068	(+)	177	(-)	16	(+)	199
Nuts (except coconuts).....	4,744	217	1,508	(-)	67	(+)	31	(-)	89
Band or hoop iron.....	4,699	367	4,075	(+)	21	(+)	216	(-)	264
Castings and forgings (iron).....	4,497	496	3,999	(+)	2,371	(+)	39	(-)	2,403
Soda and soda compounds.....	4,411	668	3,328	(+)	745	(+)	113	(+)	510
Raw wool.....	4,307	2,280	947	(-)	1,483	(-)	390	(-)	166
Noils, tops and waste wool.....	3,834	3,433	19	(-)	1,989	(-)	1,748	(-)	78
Cotton yarns.....	3,828	1,255	2,550	(-)	364	(-)	256	(+)	884
Sulphur.....	3,823		3,822	(+)	884	(-)		(+)	1,681
Sisal and manila grass.....	3,823		3,773	(-)	1,944	(-)	38	(-)	

ONE HUNDRED COMMODITIES IMPORTED INTO CANADA, 1929-30—*Concluded*

NOTE:—Comodities arranged in order of importance. Values in Thousands of Dollars.

Commodity	Total Imports 1929-30	Imports from		Increase (+) or Decrease (—) 1929-30 compared with 1928-29					
		United Kingdom	United States	Total	United Kingdom	United States			
Canned fruits.....	3,818	169	2,431	(+)	510	(+)	22	(+)	345
Medicinal preparations.....	3,809	981	2,058	(+)	82	(—)	63	(+)	111
Post office parcels.....	3,778	564	3,214	(+)	140	(+)	79	(+)	61
Wire of iron or steel.....	3,659	1,858	1,485	(—)	147	(+)	370	(—)	512
Cocoa and chocolate.....	3,651	321	477	(—)	152	(—)	56	(—)	543
Dyeing and tanning materials.....	3,547	159	2,496	(—)	435	(+)	6	(—)	467
Clocks and watches.....	3,496	83	1,225	(—)	80	(+)	13	(—)	108
Fish.....	3,475	255	1,123	(+)	23	(+)	12	(—)	93
Carpets (wool).....	3,245	1,400	275	(—)	62	(—)	21	(—)	40
Diamonds, unset.....	3,194	928	19	(+)	12	(—)	158	(—)	41
Tools.....	3,192	325	2,412	(—)	2	(+)	12	(—)	15
Musical instruments.....	3,130	74	2,635	(+)	305	(—)	18	(+)	362
Alumina and bauxite.....	3,089		2,982	(—)	717			(—)	644
Tweeds.....	2,954	2,643	41	(—)	1,172	(—)	992	(+)	9
Goods returned within five years.....	2,926	205	2,539	(—)	288	(—)	38	(—)	42
Hats and caps.....	2,908	906	936	(—)	321	(—)	341	(—)	155
Animals, living.....	2,803	261	2,490	(—)	302	(—)	34	(—)	310
Pigs and ingots (iron).....	2,717	534	1,747	(—)	426	(+)	238	(—)	517
Toys and dolls.....	2,691	331	1,078	(+)	85	(+)	30	(—)	17
Cotton clothing.....	2,528	495	1,496	(+)	173	(—)	25	(+)	103
Molasses.....	2,517	42	935	(+)	189	(—)	7	(+)	377
Tin in blocks.....	2,488	538	1,767	(—)	499	(—)	575	(—)	8
Jewelry.....	2,436	152	1,337	(—)	169	(—)	39	(—)	71
Canned vegetables.....	2,106	2	1,393	(+)	354	(+)	2	(+)	123
Rice.....	1,896	6	647	(+)	5	(—)	38	(+)	63
Binder twine.....	1,845	343	266	(—)	1,067	(+)	18	(—)	1,300
Rods of iron and steel.....	1,728	3	956	(+)	93	(—)	11	(+)	384
Silk yarn, artificial.....	1,678	67	80	(—)	475	(—)	6	(—)	7
Cotton lace and embroidery.....	1,606	692	363	(+)	133	(—)	52	(+)	102
Refined sugar.....	1,336		176	(—)	442			(—)	51
Soap.....	1,316	164	1,006	(+)	154			(+)	340
Dress goods (wool) to be dyed.....	1,219	751		(—)	631	(—)	409		
Lime.....	1,198	22	745	(+)	132	(+)	8	(+)	58
Total value of above commodities.....	1,007,153	142,501	701,825	(—)	36,270	(—)	5,588	(—)	30,953
Total value of imports.....	1,248,274	189,178	847,450	(—)	17,405	(—)	4,863	(—)	20,562
Percentage represented by above commodities.....	80.7	76.4	82.8						

CANADA'S IMPORTS FOR CANADIAN INDUSTRIES, 1929-30

It will be observed from the statistics in the following table giving "Imports of Sixty-two Leading Commodities for Canadian Industries, 1929-30" that the total value of these commodities amounted to \$351,016,000, the United Kingdom supplying \$24,986,000 of this amount, and the United States \$256,226,000. The decrease in the imports from all countries, 1930 compared with 1929, amounted to \$40,885,000; from the United Kingdom to \$2,717,000, and from the United States to \$33,138,000. According to degree of manufacture, raw materials amounted to \$178,195,000 of the total value of the commodities listed as for Canadian industries; semi-manufactured products to \$77,743,000; and fully or chiefly manufactured products to \$95,078,000. The proportion of the commodities imported from all countries, the United Kingdom and the United States, according to degree of manufacture, with increase or decrease, 1930 compared with 1929, was: Raw materials,—All countries \$178,195,000, decrease \$6,905,000; United Kingdom, \$4,351,000, decrease \$1,008,000; and United States, \$142,887,000, decrease \$6,658,000; Semi-manufactured products,—All countries, \$77,743,000, decrease \$4,571,000; United Kingdom, \$7,830,000, decrease \$1,181,000; and United States, \$42,417,000, increase \$688,000; Fully or chiefly manufactured products,—All countries, \$95,978,000, decrease \$29,409,000; United Kingdom, \$12,805,000, decrease \$528,000; and United States, \$70,922,000, decrease \$27,168,000.

For further information respecting imports of commodities for Canadian industries, with proportions received from the United Kingdom and the United States, see the following table:—

IMPORTS OF SIXTY-TWO LEADING COMMODITIES FOR CANADIAN INDUSTRIES,
1929-30

NOTE:—Commodities arranged in order of importance. Values in Thousands of Dollars.

Main Groups	Total Imports 1929-30	Imports from		Increase (+) or Decrease (−) 1929-30 compared with 1928-29		
		United Kingdom	United States	Total	United Kingdom	United States
Crude petroleum	50,951		37,938	(+) 13,291	(+)	10,973
Automobile parts	35,747	53	35,537	(−) 20,017	(+)	19,930
Bituminous coal	26,290	401	25,889	(+) 387	(−)	459
Sugar for refining	22,925		1	(−) 3,481	(−)	398
Raw cotton	21,682	73	21,566	(−) 6,522	(+)	6,604
Raw rubber	14,711	3	14,050	(−) 2,699	(−)	2,398
Lumber, rough sawn	11,103	39	10,991	(−) 1,221	(+)	1,247
Copper bars and rods	8,838	8	8,822	(+) 1,798	(+)	1,799
Raw furs	8,477	612	7,206	(−) 5,593	(−)	4,657
Raw hides	8,402	129	6,268	(−) 4,027	(+)	3,018
Raw silk	8,361		5,600	(+) 1,813	(−)	1,072
Tin plate	7,704	2,446	5,258	(−) 305	(+)	325
Automobile engines	6,957		6,957	(−) 4,771	(−)	4,771
Raw tobacco	6,472	2	5,364	(−) 295	(−)	255
Skelp iron for pipe	6,314	381	5,931	(+) 487	(+)	735
Raw coffee	5,925	620	17	(+) 68	(+)	6
Leather, unmanufactured	5,920	1,171	4,680	(−) 90	(−)	42
Woolen yarn	5,870	5,666	77	(+) 137	(+)	73
Iron, ore	5,021		3,996	(+) 630	(+)	571
Raw wool	4,307	2,280	947	(−) 1,484	(−)	556
Wool tops	3,834	3,433	19	(+) 1,989	(−)	166
Cotton yarn	3,828	1,255	2,550	(−) 364	(−)	78
Sulphur	3,823		3,822	(+) 884	(+)	884
Manila and sisal grass	3,823		3,773	(−) 1,944	(−)	1,680
Dyeing and tanning materials	3,548	159	2,496	(+) 435	(+)	467
Gums and resins	3,432	52	2,953	(+) 83	(+)	4
Silk cloth to be dyed	3,344	2	25	(−) 621	(−)	21
Alumina, bauxite and cryolite	3,282		3,005	(−) 823	(−)	697
Diamonds, unset	3,194	928	19	(+) 12	(−)	41
Iron and steel articles for agricultural implements	3,156	72	3,038	(−) 1,165	(+)	1,186
Crude cotton seed oil	2,975	962	1,985	(+) 525	(+)	54
Pigs, ingots, blooms (iron)	2,717	534	1,747	(−) 426	(+)	517
Crude peanut oil	2,587	747	734	(+) 847	(+)	313
Diamond dust or bort, and black diamonds for borers	2,524	129	2,345	(−) 91	(−)	89
Tin in blocks	2,488	538	1,767	(−) 499	(−)	459
Furs, wholly or partially dressed	2,202	106	1,481	(+) 339	(−)	489
Rolled iron or steel for agricultural implements	2,189	10	2,179	(−) 1,022	(−)	1,019
Oil for soap industry	2,144	86	1,958	(−) 241	(+)	337
Celluloid in lumps	2,043	58	1,656	(+) 311	(−)	196
Raw cocoa	1,971	205	312	(+) 29	(+)	109
Wire rods for making wire	1,713	3	941	(+) 91	(+)	380
Artificial silk yarn and tops	1,678	67	80	(−) 475	(−)	7
Rubber, hard, recovered, etc.	1,598	23	1,565	(−) 170	(+)	187
Sausage casings	1,548		220	(−) 616	(−)	3
Grease for soap and leather	1,322	22	1,182	(+) 192	(+)	143
Dress goods (wool) to be dyed	1,219	751		(−) 632	(−)	173
Veneers of wood	1,213	7	1,167	(+) 215	(+)	109
Hatters' materials	1,207	43	593	(−) 434	(−)	516
Axles for vehicles	1,030	4	1,026	(−) 520	(−)	24
Oxide of manganese	998		80	(−) 56	(+)	22
Tires, locomotive and car wheel	943	440	503	(+) 3	(+)	14
Zinc in sheets and plates	820	20	380	(+) 89	(+)	74
Sulphate of alumina	618	31	563	(+) 96	(+)	37
Boiler plate	564	5	558	(−) 37	(−)	59
Glycerine for explosives	546	157	11	(+) 55	(+)	49
Sulphate of soda	513	230	261	(+) 93	(+)	104
Sand, silica, for industries	481	1	412	(+) 109	(+)	37
Broom, corn	462		462	(+) 35	(+)	

IMPORTS OF SIXTY-TWO LEADING COMMODITIES FOR CANADIAN INDUSTRIES,
1929-30—Concluded

Main Groups	Total Imports 1929-30	Imports from		Increase (+) or Decrease (—) 1929-30 compared with 1928-29		
		United Kingdom	United States	Total	United Kingdom	United States
Bristles.....	442	12	363	(+) 52		(+) 28
Hemp.....	359		306	(+) 125		(+) 100
Ores of metal, n.o.p.....	333	9	265	(—) 323	8	(—) 370
Logs.....	329		329	(—) 300		(—) 293
Total above commodities..	351,016	24,986	256,226	(—) 40,885	(—) 2,717	(—) 33,138
RECAPITULATION						
Imports according to degree of manufacture—						
Raw materials.....	178,195	4,351	142,887	(—) 6,905	(—) 1,008	(—) 6,658
Semi-manufactured.....	77,743	7,830	42,417	(—) 4,571	(—) 1,181	(+) 688
Fully or chiefly manufactured	95,078	12,805	70,922	(—) 29,409	(—) 528	(—) 27,168

ANALYSIS OF CANADA'S COMMODITY EXPORTS, 1929-30

The decrease in the domestic exports, 1930 compared with 1929, amounting to \$243,451,000, as in the imports, occurred in four of the nine main groups, the groups also being the same. The decrease in the four main groups to show declines, viz.: Agricultural and Vegetable Products, Animals and Animal Products, Fibres, Textiles and Textile Products and Iron and Its Products, amounted to \$291,905,000, while the increase in the five main groups to show increases, viz.: Wood, Wood Products and Paper, Non-Ferrous Metals and Their Products, Non-Metallic Minerals and Their Products, Chemicals and Allied Products and Miscellaneous Commodities, totalled \$48,454,000. The domestic exports, arranged in order of importance, with increase or decrease, 1930 compared with 1929, were: (1) Agricultural and Vegetable Products, \$384,636,000, decrease \$261,878,000; (2) Wood, Wood Products and Paper, \$289,567,000, increase \$945,000; (3) Non-Ferrous Metals and Their Products, \$154,319,000, increase \$41,541,000; (4) Animals and Animal Products, \$133,009,000, decrease \$25,748,000; (5) Iron and Its Products, \$78,590,000, decrease \$3,667,000; (6) Non-Metallic Minerals and Their Products, \$28,545,000, increase \$1,143,000; (7) Chemicals and Allied Products, \$22,468,000, increase \$3,030,000; (8) Miscellaneous Commodities, \$20,058,000, increase \$1,794,000; and (9) Fibres, Textiles and Textile Products, \$9,066,000, decrease \$612,000.

The principal exports under the Agricultural and Vegetable Products group (value \$384,636,000), with increase or decrease, 1930 compared with 1929, were: wheat, \$215,753,000, decrease \$212,770,000; wheat flour, \$45,457,000, decrease \$19,661,000; whiskey, \$25,856,000, increase \$1,733,000; rubber tires \$18,040,000, decrease \$1,080,000; barley, \$10,389,000, decrease \$15,355,000; rubber footwear, \$9,986,000, increase \$1,397,000; apples, fresh, \$8,112,000, increase \$3,245,000; potatoes, \$8,042,000, increase \$4,959,000; oats, \$4,056,000, decrease \$6,186,000; seeds, \$3,238,000, decrease \$4,707,000; bran and shorts, \$2,582,000, decrease \$2,914,000; oatmeal and rolled oats, \$2,441,000, decrease \$632,000; ale and beer, \$1,996,000, decrease \$3,612,000; rye, \$1,452,000, decrease \$9,357,000; and refined sugar, \$1,424,000, decrease \$752,000. Under the Animals and Animal Products group (valued at \$133,009,000) the chief exports, with increase or decrease, 1930 compared with 1929, were: Fish, \$34,768,000, decrease \$214,000; raw furs, \$18,706,000, decrease \$5,544,000; cheese, \$18,278,000, decrease \$6,904,000; animals, living, \$15,771,000, decrease \$1,263,000; meats, \$15,031,000, decrease \$1,154,000; raw hides, \$7,731,000, decrease \$1,749,000; unmanufactured leather,

\$6,497,000, decrease \$3,095,000; milk and cream, fresh, \$5,379,000, decrease \$1,749,000; and milk, condensed, \$3,262,000, decrease \$459,000. The main exports under the Fibres, Textile and Textile Products group (value \$9,066,000), with increase or decrease, 1930 compared with 1929, were: Rags, \$1,632,000, decrease \$169,000; raw wool, \$1,576,000, decrease \$1,221,000; binder twine, \$1,502,000, increase \$185,000; cottons, \$843,000, increase \$141,000; socks and stockings, \$826,000, increase \$362,000; felt manufactures, \$654,000, increase \$92,000; woollen goods, \$449,000, decrease \$10,000; artificial silk, \$229,000, decrease \$16,000; and gloves and mitts, \$216,000, decrease \$10,000..

Under the main group of Wood, Wood Products and Paper (valued at \$289,567,000) the principal exports, with increase or decrease, 1930 compared with 1929, were: Newsprint paper, \$145,401,000, increase \$3,058,000; planks and boards, \$49,447,000, increase \$1,783,000; wood pulp, \$44,914,000, increase \$18,000; pulpwood, \$13,860,000, decrease \$327,000; shingles, \$6,704,000, decrease \$1,089,000; timber, square, \$4,235,000; increase, \$381,000; logs, \$3,678,000, decrease \$971,000; and laths, \$3,095,000, decrease \$2,929,000. The chief exports under the main group of Iron and Its Products (valued at \$78,590,000), with increase or decrease, 1930 compared with 1929, were: Automobiles, \$35,308,000, decrease \$7,752,000; farm implements, \$18,397,000, increase \$2,526,000; machinery, \$7,155,000, decrease \$182,000; pigs and ingots \$4,727,000, increase \$843,000; automobile parts, \$2,299,000, decrease \$84,000; pipe and tubing, \$2,203,000, decrease \$20,000; and hardware and cutlery, \$1,743,000, decrease \$227,000. Under the Non-Ferrous Metals and Their Products group (valued at \$154,319,000) the chief exports, with increase or decrease, 1930 compared with 1929, were: Raw gold, \$34,375,000, increase \$21,979,000; copper blister, \$28,966,000, increase \$9,998,000; nickel, \$25,035,000; increase \$1,155,000; aluminium, \$16,422,000, increase \$6,778,000; silver, \$11,570,000, decrease \$393,000; lead, \$10,638,000, decrease \$492,000; copper ore, \$8,770,000, increase \$833,000; and zinc, \$8,367,000, increase \$60,000.

The chief exports under the main group of Non-Metallic Minerals and Their Products (valued at \$28,545,000), with increase or decrease, 1930 compared with 1929, were: Raw asbestos, \$12,074,000, increase \$807,000; stone and its products, \$6,904,000, increase \$366,000; coal, \$3,999,000, decrease \$525,000; crude petroleum, \$1,281,000, decrease \$27,000; and gasoline and naphtha, \$950,000, increase \$226,000. Under the main group of Chemicals and Allied Products (valued at \$22,468,000), the principal exports, with increase or decrease, 1930 compared with 1929, were: Fertilizers, \$7,990,000, increase \$1,912,000; acids, \$5,097,000, increase \$856,000; soda and compounds, \$4,209,000; increase \$289,000; drugs and medicines, \$780,000, increase \$119,000; and paints and varnishes, \$503,000, decrease \$26,000. The principal exports under the main group of Miscellaneous Commodities (valued at \$20,058,000), with increase or decrease, 1930 compared with 1929, were: Settlers' effects, \$6,304,000, increase \$387,000; films, \$4,790,000, increase \$525,000; electrical energy, \$4,028,000, increase \$90,000; vessels, \$901,000, increase \$692,000; musical instruments, \$646,000, decrease \$122,000; containers (empty packages), \$616,000, increase \$44,000; and stationery, \$602,000, increase \$141,000.

For further information respecting Canada's exports in principal commodities, with proportions sent to the United Kingdom and the United States, see the following table:—

REPORT OF THE DEPUTY MINISTER

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CANADA'S DOMESTIC EXPORTS BY MAIN GROUPS, 1929-30

NOTE:—Values in Thousands of Dollars.

Main Groups	Total Domestic Exports 1929-30	Exports to		Increase (+) or Decrease (—) 1929-30 compared with 1928-29		
		United Kingdom	United States	Total	United Kingdom	United States
Agricultural and Vegetable Products.....	384,636	186,522	48,627	(—) 261,878	(—) 138,584	(—) 9,900
Animals and Animal Products....	133,009	40,674	66,894	(—) 25,748	(—) 6,971	(—) 18,100
Fibres, Textiles and Textile Products.....	9,066	977	3,961	(—) 612	(+) 166	(—) 969
Wood, Wood Products and Paper..	289,567	21,542	237,577	(+) 946	(—) 809	(+) 1,912
Iron and Its Products.....	78,590	6,848	11,635	(—) 3,667	(—) 1,873	(+) 478
Non-ferrous Metal Products.....	154,319	15,404	101,729	(+) 41,541	(—) 943	(+) 38,507
Non-Metallic Mineral Products.....	28,545	1,952	18,662	(+) 1,143	(+) 181	(+) 667
Chemicals and Allied Products....	22,468	4,889	12,536	(+) 3,030	(+) 852	(+) 1,757
Miscellaneous Commodities.....	20,058	3,030	13,336	(+) 1,794	(+) 89	(+) 993
Total Exports (domestic).....	1,120,258	281,838	514,957	(—) 243,451	(—) 147,892	(+) 15,345
Foreign Exports.....	24,680	1,336	21,654	(—) 506	(—) 594	.....
Total Exports.....	1,144,938	283,174	536,611	(—) 243,957	(—) 148,486	(+) 15,345

SEVENTY LEADING CANADIAN COMMODITIES EXPORTED FROM CANADA, 1929-30

NOTES:—Commodities arranged in order of importance; Values in Thousands of Dollars.

Commodity	Total Domestic Exports 1929-30	Exports to		Increase (+) or Decrease (—) 1929-30 compared with 1928-29		
		United Kingdom	United States	Total	United Kingdom	United States
Wheat.....	215,753	139,798	7,487	(—) 212,771	(—) 120,211	(—) 4,894
Printing paper.....	145,401	9,056	126,289	(+) 3,058	(—) 656	(+) 3,191
Planks and boards.....	49,447	6,271	38,308	(+) 1,783	(—) 406	(+) 1,930
Wheat flour.....	45,457	14,077	12,502	(—) 19,661	(—) 2,895	(—) 1
Wood pulp.....	44,914	1,617	37,265	(+) 18	(—) 168	(+) 323
Copper, ore and blister.....	37,735	668	34,085	(+) 10,831	(—) 935	(+) 10,998
Automobiles.....	35,308	3,001	114	(—) 7,752	(—) 2,465	(+) 42
Fish.....	34,768	4,108	14,572	(—) 214	(+) 390	(—) 232
Raw gold.....	34,375	.....	34,375	(+) 21,979	(—) 22	(+) 22,004
Whiskey.....	25,856	95	16,405	(+) 1,733	(+) 9	(—) 1,707
Nickel.....	25,035	2,538	17,832	(+) 1,154	(+) 2,611	(+) 4,343
Raw furs.....	18,706	10,314	7,603	(—) 5,544	(—) 276	(—) 5,490
Farm implements.....	18,397	459	4,119	(+) 2,526	(+) 11	(—) 248
Cheese.....	18,278	16,225	1,499	(—) 6,904	(—) 6,415	(—) 371
Rubber tires.....	18,040	454	33	(—) 1,080	(—) 804	(+) 4
Meats.....	15,031	7,169	6,446	(—) 4,154	(—) 350	(—) 3,937
Pulpwood.....	13,860	.....	13,860	(—) 327	(—)	(—) 327
Aluminium in bars.....	13,828	2,340	4,887	(+) 5,220	(+) 919	(+) 564
Cattle.....	13,119	.....	12,917	(—) 1,575	(—) 62	(+) 1,546
Asbestos, raw.....	12,074	384	7,898	(+) 807	(—) 155	(+) 518
Silver ore and bullion.....	11,570	92	4,739	(—) 393	(—) 181	(—) 676
Lead.....	10,638	4,342	1,231	(—) 492	(—) 405	(+) 358
Barley.....	10,389	7,560	70	(—) 15,355	(—) 9,993	(+) 41
Rubber footwear.....	9,986	3,370	1	(+) 1,397	(+) 112	(—) 2
Zinc.....	8,367	2,751	229	(+) 60	(+) 1,327	(+) 31
Apples, green.....	8,112	6,626	526	(+) 3,245	(+) 274	(+) 273
Potatoes.....	8,042	.....	5,558	(+) 4,959	(+)	(+) 4,417
Fertilizers.....	7,990	.....	6,967	(+) 1,912	(+)	(+) 1,431
Raw hides.....	7,731	8	7,572	(—) 1,749	(—) 4	(+) 1,672
Machinery.....	7,155	1,888	378	(—) 182	(+) 509	(+) 106
Shingles (wood).....	6,704	1	6,599	(—) 1,089	(—) 5	(+) 1,064
Leather, unmanufactured.....	6,497	1,201	4,812	(—) 3,095	(—) 811	(—) 2,279
Settlers' effects.....	6,304	474	5,540	(+) 386	(+) 45	(+) 343

SEVENTY LEADING CANADIAN COMMODITIES EXPORTED FROM CANADA, 1929-30—Concluded

NOTES:—Commodities arranged in order of importance; Values in Thousands of Dollars.

Commodity	Total Domestic Exports 1929-30	Exports to		Increase (+) or Decrease (—) 1929-30 compared with 1928-29			
		United Kingdom	United States	Total	United Kingdom	United States	
Milk and cream, fresh.....	5,379		5,379	(—) 682	(—) 2	(—) 680	
Acids.....	5,097	2,841	2,215	(+) 856	(+) 685	(+) 194	
Films.....	4,791	2,007	1,929	(+) 525	(—) 43	(+) 599	
Ferro-manganese and ferro-silicon.....	4,544		4,534	(+) 703		(+) 742	
Square timber.....	4,235	587	365	(+) 381	(+) 16	(+) 154	
Soda and soda compounds.....	4,209		2,328	(+) 289		(+) 305	
Oats.....	4,056	1,453	20	(—) 6,186	(—) 2,590	(—) 3	
Coal.....	3,999	188	1,721	(—) 525	(+) 40	(+) 356	
Poles (wood).....	3,928		3,918	(+) 478		(+) 469	
Abrasives, artificial, crude.....	3,776	289	3,454	(+) 330	(+) 50	(+) 366	
Logs (wood).....	3,678	85	2,479	(—) 971	(+) 25	(+) 125	
Milk, condensed.....	3,262	635	298	(—) 459	(—) 260	(—) 140	
Laths (wood).....	3,095		3,059	(—) 2,929		(—) 2,940	
Bran and shorts.....	2,583	114	2,363	(—) 2,913	(+) 111	(—) 2,989	
Electric apparatus.....	2,521	274	107	(+) 120	(—) 25	(+) 12	
Paper board.....	2,507	803	1,335	(+) 195	(+) 106	(+) 87	
Oatmeal and rolled oats.....	2,441	2,011		(—) 632	(—) 62		
Cereal foods.....	2,431	2,385	9	(+) 192	(+) 208	(+) 2	
Automobile parts.....	2,299	58	66	(—) 84	(—) 62	(—) 78	
Tubes and pipes (iron).....	2,203	171	420	(—) 20	(—) 91	(—) 325	
Aluminium, manufactured.....	2,058	170	17	(+) 1,392	(+) 123	(+) 13	
Hay.....	2,008	1,399	322	(+) 881	(+) 903	(—) 118	
Malt liquors.....	1,996		1,959	(—) 3,612		(—) 3,630	
Hardware and cutlery.....	1,743	607	106	(—) 227	(—) 71	(—) 4	
Flaxseed.....	1,732	12	1,720	(—) 4,013	(+) 7	(—) 4,023	
Rolling mill products.....	1,682	7	144	(+) 625	(—) 5	(—) 114	
Wrapping paper.....	1,655	292	18	(—) 158	(—) 18	(+) 2	
Raw wool.....	1,576	222	1,317	(—) 1,221	(+) 11	(—) 1,213	
Raw tobacco.....	1,504	1,389	1	(—) 450	(—) 537	(—) 1	
Binder twine.....	1,502	32	965	(+) 185	(+) 32	(+) 392	
Rye.....	1,452	286		(—) 9,357	(—) 5,082	(—) 79	
Sugar, refined.....	1,424		80	(—) 752	(+) 621	(+) 139	
Fish oils.....	1,381	13	1,290	(—) 362	(+) 12	(—) 656	
Clover seed.....	1,317	325	873	(—) 574	(+) 96	(—) 115	
Crude petroleum.....	1,281	505	651	(—) 27	(+) 12	(—) 49	
Musical instruments.....	646	14	205	(—) 122	(—) 20	(—) 62	
Butter.....	544		9	(—) 221			
Total value of above commodities.....	1,041,402	266,061	488,394	(—) 250,614	(—) 150,135	(+) 12,377	
Total value of exports (Canadian).....	1,120,258	281,838	514,957	(—) 243,451	(—) 147,892	(+) 15,345	
Percentage represented by above commodities.....	92.9	94.4	94.8				

CANADA'S TRADE VIA THE UNITED STATES, 1929-30

There has been a steady decline in the imports into Canada from overseas countries via the United States, especially in imports from the British Empire. The decrease in the total imports via the United States during the fiscal year 1930 compared with 1927 amounted to \$2,911,331; the imports from the United Kingdom showing an increase of \$314,163; but a decrease from other British countries of \$2,610,820, and from foreign countries of \$614,674. The appended table shows that imports from the United Kingdom via the United States from 1927 to 1930 increased from \$728,001 to \$1,042,164, while imports from other British countries decreased from \$3,832,540 to \$1,221,720, and imports from foreign countries from \$8,200,679 to \$7,586,005. The proportions were: United Kingdom, 1927, 0.4 per cent; 1930, 0.5½ per cent; other British countries, 1927, 7.7 per cent; 1930, 1.9 per cent; foreign countries, 1927, 6.3 per cent; 1930, 5.1 per cent.

IMPORTS INTO CANADA VIA THE UNITED STATES

Imports from	Years ended March 31			
	1927	1928	1929	1930
United Kingdom via United States.....	\$ 728,001	\$ 773,694	\$ 987,752	\$ 1,042,164
Per cent of total imports from United Kingdom.....	0.4	0.4	0.5	0.5½
Other British Empire via United States.....	\$ 3,832,540	\$ 2,241,007	\$ 1,645,950	\$ 1,221,720
Per cent of total imports from other British Empire.....	7.7	3.5	2.6	1.9
Foreign Countries via United States.....	\$ 8,200,679	\$ 9,102,893	\$ 8,408,832	\$ 7,586,005
Per cent of total imports from foreign countries.....	6.3	6.5	6.0	5.1
Total imports via United States.....	\$ 12,761,220	\$ 12,117,594	\$ 11,042,534	\$ 9,849,889
Per cent of total imports from Overseas Countries.....	3.7	3.1	2.9	2.4½

Exports from Canada to overseas countries via the United States show very little change for the years 1927, 1928 and 1929, though there was a marked decline in 1930, no doubt due to falling off in Canada's wheat exports. In 1927 the proportion was 39.5 per cent of all exports to overseas countries; in 1928, 38.9 per cent; in 1929, 36.7 per cent; and in 1930 it was down to 33.8 per cent. The statistics in the following table show that Canada's exports to overseas countries via the United States were: United Kingdom in 1927, \$216,313,069; in 1930, \$113,333,242; other British countries in 1927, \$23,549,163; in 1930, \$22,762,811; and foreign countries in 1927, \$70,422,646; and in 1930, \$69,069,677. The proportions were: United Kingdom, 1927, 48.4 per cent; 1930, 40.2 per cent; other British countries, 1927, 25.1 per cent; 1930, 23.2½ per cent; foreign countries, 1927, 28.7 per cent; 1930, 30.6 per cent.

EXPORTS FROM CANADA VIA THE UNITED STATES

Exports to	Years ended March 31			
	1927	1928	1929	1930
United Kingdom via United States.....	\$ 216,313,069	201,784,594	\$ 217,590,205	\$ 113,333,242
Per cent of total exports to United Kingdom.....	48.4	49.1	50.6	40.2
Other British Empire via United States.....	\$ 23,549,163	\$ 26,762,373	\$ 30,749,198	22,762,811
Per cent of total exports to other British Empire.....	25.1	30.2	28.9	23.2½
Foreign countries via United States.....	\$ 70,422,646	\$ 63,060,434	\$ 68,850,420	\$ 69,069,677
Per cent of total exports to Foreign Countries.....	28.7	25.1	21.0	30.6
Total exports via United States.....	\$ 310,284,878	\$ 291,607,401	\$ 317,189,823	\$ 205,163,730
Per cent of total exports to overseas countries.....	39.5	38.9	36.7	33.8

CANADA'S POSITION IN INTERNATIONAL TRADE

The statistics in the following table showing "Total Trade of Ten Leading Countries of the World" indicate that Canada occupies the same position in total trade as last year. In 1913 she was in eighth position in total trade, being exceeded by the United Kingdom, Germany, the United States, France, the Netherlands, British India and Italy, but in 1929 she had advanced to fifth position, having displaced the Netherlands, British India and Italy.

TRADE AND COMMERCE

TOTAL TRADE OF TEN LEADING COUNTRIES OF THE WORLD

Rank				Countries	Years ended December 31			
1913	1927	1928	1929		1913	1927	1928	1929
					\$	\$	\$	\$
3	1	1	1	United States.....	4,205,147,000	8,836,200,000	9,021,675,000	9,473,681,000
1	2	2	2	United Kingdom.....	5,764,185,000	8,786,426,000	8,760,074,000	8,961,499,000
2	3	3	3	Germany.....	4,966,298,000	5,798,125,000	6,075,082,000	6,406,186,000
4	4	4	4	France.....	2,953,199,000	4,236,519,000	4,107,967,000	4,269,265,000
9	5	5	5	Canada.....	1,095,282,000	2,285,010,000	2,547,690,000	2,455,479,000
7	6	6	6	British India.....	1,376,068,000	2,059,253,000	2,120,829,000	2,126,894,000
10	7	7	7	Japan.....	676,761,000	1,903,237,000	1,879,837,000	1,987,020,000
5	10	8	8	Netherlands.....	2,814,404,000	1,784,543,000	1,880,173,000	1,919,002,000
8	8	7	9	Italy.....	1,188,354,000	1,853,210,000	1,918,883,000	1,903,534,000
6	9	10	10	Belgium.....	1,596,400,000	1,430,000,000	1,720,400,000	1,895,138,000

Canada, in import trade, among the ten leading importing nations, occupied eighth position in 1913, being exceeded by the United Kingdom, Germany, United States, France, the Netherlands, Belgium and Italy. In 1929 she had advanced to fifth position, displacing the Netherlands, Belgium and Italy. The particulars are set forth in the following table:—

NET IMPORTS INTO TEN LEADING COUNTRIES OF THE WORLD

Rank				Countries	Years ended December 31			
1913	1927	1928	1929		1913	1927	1928	1929
					\$	\$	\$	\$
1	1	1	1	United Kingdom.....	3,207,951,000	5,335,448,000	5,239,394,000	5,410,998,000
3	2	2	2	United States.....	1,756,863,000	4,077,886,000	3,991,993,000	4,316,272,000
2	3	3	3	Germany.....	2,563,331,000	3,366,072,000	3,354,048,000	3,197,432,000
4	4	4	4	France.....	1,625,317,000	2,071,828,000	2,095,172,000	2,296,414,000
8	5	5	5	Canada.....	659,064,000	1,066,673,000	1,197,939,000	1,273,067,000
7	6	6	6	Italy.....	703,608,000	1,049,018,000	1,156,861,000	1,120,381,000
5	7	7	7	Netherlands.....	1,575,036,000	1,022,369,000	1,080,537,000	1,113,856,000
10	8	8	8	Japan.....	363,257,000	995,362,000	991,439,000	1,008,580,000
6	10	10	9	Belgium.....	894,865,000	807,602,000	880,011,000	993,110,000
9	9	9	10	British India.....	594,121,000	896,897,000	910,849,000	944,796,000

In export trade, Canada in recent years has made greater progress than in import trade, though for the year 1929 the exports show a decline, due to falling off in the Dominion's grain exports. Even with the serious decline in exports, the Dominion occupied fifth position among the leading commercial countries of the world. In 1913 Canada occupied ninth position in export trade, being exceeded by the United Kingdom, the United States, Germany, France, the Netherlands, British India, Belgium and Argentina, but in 1929 she occupied fifth position, having displaced the Netherlands, British India, Belgium and Argentina. The particulars are set out in the appended table:—

DOMESTIC EXPORTS FROM TEN LEADING COUNTRIES OF THE WORLD

Rank				Countries	Years ended December 31			
1913	1927	1928	1929		1913	1927	1928	1929
					\$	\$	\$	\$
2	1	1	1	United States.....	2,448,284,000	4,758,314,000	5,029,682,000	5,157,409,000
1	2	2	2	United Kingdom.....	2,556,234,000	3,450,978,000	3,520,680,000	3,550,501,000
3	3	3	3	Germany.....	2,402,967,000	2,432,053,000	2,721,034,000	3,208,754,000
4	4	4	4	France.....	1,327,882,000	2,164,691,000	2,012,795,000	1,972,851,000
9	5	5	5	Canada.....	436,218,000	1,218,337,000	1,349,751,000	1,182,412,000
6	6	6	6	British India.....	781,947,000	1,162,356,000	1,209,980,000	1,182,008,000
10	8	8	7	Japan.....	313,504,000	907,875,000	888,398,000	978,440,000
8	7	7	8	Argentina.....	465,582,000	973,999,000	987,195,000	920,363,000
7	10	9	9	Belgium.....	701,475,000	739,179,000	840,454,000	902,028,000
5	9	10	10	Netherlands.....	1,239,368,000	761,974,000	799,636,000	805,147,000

Canada has made a creditable showing since 1913 among the principal commercial countries of the world in trade per capita. In the year 1913 Canada occupied fifth position in import trade per capita, seventh in export trade per capita, and sixth position in aggregate trade per capita; but in 1929 she occupied fifth place in imports per capita, third place in exports per capita, and fourth place in aggregate trade per capita. The particulars as to the trade per capita of ten leading countries of the world, are set out in the following table:—

PER CAPITA TRADE OF TEN LEADING COUNTRIES OF THE WORLD

Rank		Countries	Years ended December 31					
1913	1929		1913			1929		
			Import Trade	Export Trade	Aggregate Trade	Import Trade	Export Trade	Aggregate Trade
			\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
3	1	New Zealand.....	93 89	97 01	195 90	159 00	181 72	340 72
7	2	Denmark.....	75 08	61 55	136 63	130 34	123 78	254 12
1	3	Netherlands.....	256 35	201 71	458 06	144 07	104 14	248 21
6	4	Canada.....	87 55	57 95	145 50	128 14	119 01	247 15
2	5	Belgium.....	118 07	92 55	210 62	124 20	112 81	237 01
4	6	Switzerland.....	97 99	70 25	168 24	134 55	101 71	236 26
5	7	Australia.....	78 30	74 78	153 08	108 59	91 68	200 27
8	8	United Kingdom.....	69 68	55 52	125 20	118 29	77 62	195 91
9	9	Norway.....	60 11	41 46	101 57	101 09	71 03	172 12
10	10	Argentina.....	46 74	53 61	100 35	76 28	84 40	160 68

In 1913 Canada in trade balance occupied fifteenth position among the leading trading countries of the world, with an unfavourable trade balance of \$222,900,000 or \$29.61 per capita, but in 1929 she was in twelfth position with an unfavourable trade balance of \$90,655,000 or \$9.13 per capita. The particulars are set out in the appended table:—

TRADE BALANCES OF FIFTEEN LEADING COUNTRIES OF THE WORLD

NOTE.—Favourable balance marked (+); Unfavourable balance marked (—)

Rank			Countries	Years ended December 31					
1913	1928	1929		1913		1928		1929	
				Amount	Per capita	Amount	Per capita	Amount	Per capita
				Million \$	\$ cts.	Million \$	\$ cts.	Million \$	\$ cts.
1	1	1	United States.....	(+) 691.4	(+) 7.13	(+) 1,037.7	(+) 8.65	(+) 841.1	(+) 7.01
2	2	2	British India.....	(+) 187.8	(+) 0.60	(+) 299.1	(+) 0.94	(+) 237.3	(+) 0.75
3	4	3	Argentina.....	(+) 59.0	(+) 6.78	(+) 111.9	(+) 10.52	(+) 88.5	(+) 8.12
6	6	4	Brazil.....	(-) 11.3	(-) 0.46	(+) 33.1	(+) 0.84	(+) 39.7	(+) 0.99
4	5	5	New Zealand.....	(-) 2.0	(-) 1.90	(+) 49.8	(+) 34.50	(+) 33.3	(+) 22.72
13	15	6	Germany.....	(-) 160.4	(-) 2.42	(-) 633.0	(-) 10.01	(+) 11.3	(+) 0.18
5	10	7	Sweden.....	(-) 7.9	(-) 1.41	(-) 38.4	(-) 6.31	(+) 9.0	(+) 1.47
11	7	8	British South Africa.....	(-) 62.6	(-) 9.00	(-) 3.4	(-) 0.35	(-) 3.4	(-) 0.37
8	9	9	Denmark.....	(-) 37.5	(-) 13.51	(-) 21.8	(-) 6.27	(-) 22.9	(-) 6.56
10	13	10	Japan.....	(-) 49.8	(-) 0.95	(-) 103.0	(-) 1.63	(-) 30.1	(-) 0.47
9	12	11	Norway.....	(-) 45.9	(-) 18.60	(-) 88.3	(-) 31.58	(-) 84.5	(-) 30.06
15	3	12	Canada.....	(-) 222.9	(-) 29.61	(+) 151.8	(+) 15.72	(-) 90.7	(-) 9.13
14	11	13	Belgium.....	(-) 193.4	(-) 25.50	(-) 39.5	(-) 4.98	(-) 91.1	(-) 11.39
7	8	14	Australia.....	(-) 16.6	(-) 3.51	(-) 17.0	(-) 2.71	(-) 107.7	(-) 16.91
12	14	15	Switzerland.....	(-) 105.1	(-) 27.80	(-) 117.6	(-) 29.50	(-) 131.9	(-) 32.84

Commercial Intelligence Service

The Director of the Commercial Intelligence Service writes as follows:—

On March 15, 85 candidates, each a graduate of a Canadian university, presented themselves for the written examinations in connection with appoint-

ments to the Commercial Intelligence Service. Of these 60 passed the test, and from that number eight will be selected to begin training in the Department in June as Junior Trade Commissioners. No more gratifying illustration could be afforded in support of the department's endeavour to have the Commercial Intelligence Service regarded as a career. One year ago the total number of candidates who wrote was 42, of whom 30 passed, and two years ago five only were successful out of 14.

It is equally gratifying to find that the interest was so widespread. The distribution of candidates, according to examination centres, was as follows: Vancouver, 5; Calgary, 2; Edmonton, 1; Regina, 1; Saskatoon, 5; Moose Jaw, 1; Brandon, 2; Winnipeg, 5; Windsor, 5; London, 3; Hamilton, 2; Toronto, 22; Kingston, 3; Ottawa, 8; Montreal, 12; Quebec, 1; Sherbrooke, 2; Three Rivers, 1; Summerside, 1; Moncton, 1; Halifax, 2.

SYSTEM OF EXAMINATION

Examination consists of a written test of the candidate's general knowledge of Canadian resources, the principles of export trade, etc., which counts for 40 per cent; and an oral examination, conducted by an officer of the department and an officer of the Civil Service Commission, to determine the value of the candidate's education, personal and physical fitness, which counts for 60 per cent. The written examination is held at various centres throughout Canada and a board, consisting of an officer of the department and an officer of the Civil Service Commission conducts the oral examination of successful candidates at these centres.

Aside from good appearance and address, which are most essential, the principal requirements for a Junior Trade Commissioner include physical fitness, age between 21 and 31, unmarried, a knowledge of the principles of foreign trade and of the resources of Canada. The education required is equivalent to graduation from a university of recognized standing or from the Royal Military College. Preference is given to candidates with a degree of B.Com., and there are also bonus marks for languages.

On appointment, successful candidates report at the department for eight to twelve months' training, and if found to be suitable are posted as Assistant Trade Commissioners to offices abroad for further training under Trade Commissioners. Promotion to the rank of Trade Commissioner is made as new offices open or vacancies occur.

EDUCATIONAL STANDING OF PERSONNEL

Of the 50 members of the service on March 31, 1929, three were non-university men, seven had attended universities abroad, and Canadian universities had contributed to the personnel as follows: Toronto, 6; McGill, 9; Queen's, 9; Saskatchewan, 5; Laval, 3; British Columbia, 2; Mt. Allison, Royal Military College, Dalhousie, Ottawa, Manitoba and Acadia, 1 each.

RESULTS ACCOMPLISHED BY TRADE COMMISSIONERS

It is impossible, by any system of statistics, to represent adequately not only the activities of Canadian Trade Commissioners abroad, but more particularly, the extent to which they have influenced new business for Canadian firms. However, an examination of the annual and quarterly progress reports, received from each office during the year, shows the following:—

New business reported.....	\$ 6,180,218
Number of agents appointed.....	604
Number of special reports upon foreign markets for Canadian firms.....	4,245

A mere statement of the number of Canadian firms who have been introduced by Trade Commissioners to foreign buyers or the number of agents who have been appointed on the recommendation of Trade Commissioners is simply an indication that certain business has been initiated. In the great majority of cases, direct evidence is unobtainable as to the value of business which has resulted. The part which the Trade Commissioner plays in such negotiations ends when the arrangement is completed, and thereafter it is no part of his duty to canvass firms so aided with a view to learning developments. Such attempts would be misunderstood by foreign firms and sometimes by Canadian firms. Canadian exporters, familiar with the work of the Commercial Intelligence Service, are, however, increasingly disposed to report to what extent business has been developed through the assistance of the Trade Commissioners. In the course of a year hundreds of letters of appreciation are received. A few illustrations will suffice to show the nature of the assistance afforded and the results:—

(a) A representation by a Trade Commissioner resulting in revised specifications for railway sleepers enabled a Canadian firm to obtain an order valued at \$200,000.

(b) A large indent firm in the United States makes a practice of referring to the Trade Commissioner for Canadian sources of supply and have gone on record as having purchased in Canada last year for shipment abroad goods to the value of \$350,000.

(c) A representation by a Trade Commissioner for a more favourable ruling on the admission of a certain product into a certain country has effected a saving, according to the estimate of the Canadian firm, of \$50,000 per annum.

(d) A Trade Commissioner undertook to find out, if possible, to what extent initial orders which he had assisted in the preceding year had developed, and learned that \$200,000 worth of business had resulted from these contacts.

NEW OFFICES

As a result of surveys looking to possibilities for trade expansion in certain territories, seven new offices were established. With the appointment of Mr. J. A. Langley, Trade Commissioner at Kobe, to Commercial Secretary to the Canadian Legation at Tokyo, the increase was eight. The dates upon which these were opened were as follows:—

Oslo, April 1.

Chicago, April 15.

Hong Kong, May 6.

Lima, June 4.

Athens, June 15.

Panama, June 26.

Tokyo, June 16.

San Francisco, March 1.

VISITS OF TRADE COMMISSIONERS TO CANADA

Trade Commissioners return to Canada every two years from tropical or unhealthy posts, every three years from semi-tropical posts, and every four years from other posts, for the purpose of renewing their knowledge of Canadian conditions and conferring with Canadian exporters. During the course of their tour they call upon every firm whom they wish to see or who have expressed a desire to see them.

The following Trade Commissioners were on tour during the fiscal year 1929-30:—

E. L. McColl, Buenos Aires.

R. T. Young, Port of Spain.

L. D. Wilgress, Hamburg.

H. R. Poussette, Calcutta.

A. B. Muddiman, Milan.

J. C. Macgillivray, Rotterdam.

D. H. Ross, Melbourne.

The following Trade Commissioners will be on tour in Canada during the fiscal year 1930-31:—

D. S. Cole, Bristol.
James Cormack, Havana.
G. R. Heasman, Batavia.
C. N. Wilde, Mexico City.
G. B. Johnson, Glasgow.

F. W. Fraser, Kingston.
Paul Sykes, Hong Kong.
A. S. Bleakney, Rio de Janeiro.
C. S. Bissett, Cape Town.
J. Forsyth Smith, London (Fruit).

CONFERENCES OF TRADE COMMISSIONERS

On October 8 and 9, a conference of Trade Commissioners in the United States, namely, Messrs. Hudd, O'Meara and Poussette, was held in New York City and presided over by the director. As a result of the deliberations, a definite basis for co-operation between the offices in the United States was established, as also co-ordination of office administration and methods.

On March 15 to 21, the Trade Commissioners in the Far and Middle East—Messrs. Cosgrave, Langley, Sykes, and Heasman—met in conference at Shanghai. Hon. H. H. Marler, Canadian Minister to Japan, was present at the sittings. Several important decisions were reached relating to the delimitation of territories and arrangements concluded for interchange of commercial information.

CONFERENCE OF BUSINESS PRESS

On January 30, in Toronto, the minister and the director met in conference with the leading publishers, editors and executives of the Canadian National Newspapers and Trade Periodicals Association. The meeting was informal and, for the purpose of arranging better and more practical co-operation in the way of utilizing their columns for trade publicity, and thereby making available to the department a very valuable means of creating throughout the Dominion an atmosphere friendly to the extension of export trade.

ALLOCATION OF TERRITORY

Bermuda, which for many years formed a portion of the territory assigned to the Port of Spain office, was transferred on October 1, to the New York office. Originally this Colony was allocated to the Barbados office, as one of the chain of Islands served by the Royal Mail Steam Packet Company. Later on the Canadian National Steamships commenced to operate their Western Service, when it came under the Jamaican office. It was found, however, that the office in New York was in a much better position to deal promptly with any inquiries from this colony.

Southern Manchuria was transferred, on October 1, from the territory of the Shanghai office to that of Kobe. The boundary between the Chinese and Japanese territories for trade purposes is regarded as the boundary between Korea and Manchuria.

The territory of British North Borneo has now been assigned to the Hongkong office.

APPOINTMENT OF LIASON OFFICER

Mr. E. E. Freeland on July 22, 1929, was appointed Chief of the Commercial Division of the Canadian Exhibition Commission. He is a member of the staff of the Exhibition Commissioner in London, but will act as liaison officer between the Exhibition Commissioner and the Trade Commissioners in the United Kingdom and on the Continent. In so far as the Commercial Intelligence Service is concerned, his main duty will be to take charge of the Information Bureau which it is customary to install at every exhibition for the purpose of dealing with trade inquiries and to prepare reports on these exhibitions for publication in the *Commercial Intelligence Journal*.

CHANGES AFFECTING PERSONNEL

During the year the following changes affecting personnel in the way of appointments, promotions and transfers were made:—

Maurice Belanger, appointed Assistant Trade Commissioner at Paris, November 15, 1929.

H. W. Brighton, appointed Assistant Trade Commissioner at Buenos Aires, December 24, 1929.

F. W. Bull, appointed Assistant Trade Commissioner at New York, November 4, 1929.

B. C. Butler, appointed Assistant Trade Commissioner at Batavia, January 13, 1930.

E. E. Gauvreau, appointed Assistant Trade Commissioner at Lima, June 4, 1929.

G. R. Heasman, Assistant Trade Commissioner at Batavia, promoted to be Trade Commissioner, January 1, 1930.

J. A. Langley, Trade Commissioner at Kobe, appointed Commercial Secretary to Canadian Legation, Tokyo, May 21, 1929.

B. A. Macdonald, appointed Assistant Trade Commissioner at Shanghai, December 26, 1929.

P. V. McLane, appointed Assistant Trade Commissioner at Kobe, April 12, 1929.

J. L. Mutter, appointed Assistant Trade Commissioner at Cape Town, June 3, 1929.

G. A. Newman, appointed Assistant Trade Commissioner at Liverpool, November 17, 1929.

R. S. O'Meara, Trade Commissioner at Batavia, opened new office at Chicago, April 15, 1929.

F. H. Palmer, appointed Assistant Trade Commissioner at Oslo in March, promoted to be Trade Commissioner, April 22, 1929.

H. R. Poussette, formerly Trade Commissioner at Calcutta, opened new office at San Francisco, June 1, 1929.

H. L. E. Priestman, appointed Assistant Trade Commissioner at Auckland, December 25, 1929.

W. J. Riddiford, appointed Assistant Trade Commissioner at Shanghai, April 15, 1929, and transferred to Hongkong, December 29, 1929.

R. U. Slayter, Assistant Trade Commissioner at New York, resigned December 19, 1929, to go to ill health.

G. R. Stevens, formerly Trade Commissioner at Cape Town, opened new office at Lima, June 4, 1929.

J. A. Strong, Assistant Trade Commissioner at Liverpool, promoted to be Trade Commissioner and transferred to Panama, June 26, 1929.

Paul Sykes, Assistant Trade Commissioner at Auckland, promoted to Trade Commissioner and transferred to Hongkong, May 5, 1929.

A. J. Tingley, appointed Assistant Trade Commissioner at Glasgow, December 9, 1929.

Henri Turcot, Assistant Trade Commissioner at Paris, promoted to be Trade Commissioner and transferred to new office at Athens, June 15, 1929.

Jack Vechsler, appointed Assistant Trade Commissioner at Chicago, April 28, 1929.

THE WORLD'S CUSTOMS TARIFFS

Customs duties applicable to Canadian goods exported to the various markets of the world, as well as related laws and regulations, were the subject of many inquiries received daily by the Department of Trade and Commerce. Firms contemplating larger activities in the export field or needing advice on the tariffs and customs laws under which they are already trading look more and more each year to the Department of Trade and Commerce for this class of information. There was a preponderance of requests for data concerning Empire tariff preferences applicable to Canadian products. A booklet on this subject, issued by the department, had a wide circulation. Special compilations for individual firms, however, are usually necessary in order to disseminate this information in a form precise enough to be of practical value to exporters, each being interested in his own particular product. The volume of inquiries was to some extent increased by new tariff legislation in British and foreign countries and the adoption of new trade regulations that have to be observed by Canadian exporters. While tariff revision throughout the world is too large a subject to be dealt with in detail, it is usual under this heading to refer to tariff conditions of some outstanding interest.

TARIFFS OF THE BRITISH EMPIRE

United Kingdom.—The limited tariff of Great Britain was maintained with little change. Tea duty of 4 pence per pound ($3\frac{1}{2}$ pence for Empire tea) lapsed as from April 22, 1929, and an amended hop oil duty became effective from August 16, 1929. The 1930 Budget (April 14) made no immediate tariff change other than adding 1 penny per gallon to the customs and excise tax on beer.

It was announced in the 1930 Budget that safeguarding duties on lace, cutlery, gloves, and gas mantles, would be allowed to expire at the end of the five year period for which these duties were enacted, namely, on June 30, 1930, for lace, and on December 21, 1930, for the other goods. These articles have been subject to $33\frac{1}{3}$ per cent ad valorem when of foreign origin and a rate one-third lower when produced within the Empire.

Expansion of intra-imperial trade by means of preferential tariffs was much discussed in England, and formal motions pertaining to certain aspects of this large question were the subject of debate in the British House of Lords on December 9, 1929, and the House of Commons on January 29, 1930.

Irish Free State.—The Irish Free State as from November 8, 1929, extended its comparatively short dutiable list by imposing a 20 per cent rate on unfilled quilt covers of silk or artificial silk, and also on such covers when containing down or feathers. A preferential rate one-third lower was granted on Empire goods of this class.

Australia.—Resolutions providing for upward revision of the Australian tariff were introduced in parliament on August 23, 1929 (affecting 16 items), on November 21, 1929 (affecting 114 items); and on December 12, 1929 (affecting 18 items). In each case the new duties became effective forthwith. On April 4, 1930, further resolutions increased rates by 50 per cent on 51 items of the tariff and prohibited, except under licence, importation of 69 articles or groups of articles, while the imports under 11 headings were restricted to 50 per cent of importations during the previous twelve months. The Prime Minister stated that the objective was to reduce the Australian adverse balance of trade and to encourage domestic manufactures.

New Zealand.—A New Zealand primage duty of one per cent ad valorem which originated in 1915 was advanced on August 1, 1929, to 2 per cent ad valorem. The tax reverted to 1 per cent as from March 31, 1930, on many foodstuffs and a few other articles. Otherwise the New Zealand tariff was almost stationary.

South Africa.—The Union of South Africa, on January 21, 1930, increased its maximum tariff on wheat from 19 pence per 100 pounds to 26 pence and on March 19, 1930, further to 32 pence. The latter 6 pence increase is to be operative only to July 1, 1930, and thereafter is to be a suspended duty which may be imposed by proclamation. Canada is accorded the minimum tariff on wheat which is 2 pence per 100 pounds lower than the rates quoted in each case. Wheat flour duty was advanced on January 21, 1930, from 44 pence to 52 pence per 100 pounds and on March 29, 1930, to 68 pence to become 60 pence as from July 1, 1930, with a suspended duty of 8 pence. Canada is accorded a minimum tariff on wheat flour which is 4 pence per 100 pounds lower than the rates quoted. Some other tariff changes were made effective from July 26, 1929; August 1, 1929; and March 26, 1930.

India.—The Cotton Textile Industry (Protection) Bill of India which went into operation on April 4, 1930, granted a preference of 5 per cent ad valorem on certain piece goods when produced in the United Kingdom of Great Britain and Northern Ireland. An Indian preference on some steel products from Great Britain and Northern Ireland had been established by the Steel Industry (Protection) Act of 1927. These two measures constitute the extent to which tariff preference is granted in India on any imports.

Canada.—A Canadian Order in Council of April 16, 1929, effective from May 2, 1929, put into operation a preference on bananas for the purpose of implementing a provision in the Canada-West Indies Trade Agreement. Bananas had been duty free under all schedules of the Canadian tariff. They remain duty free under the British Preferential schedule "when imported from the place of growth by ship direct to a Canadian port." When imported otherwise from a country under the British Preferential tariff or when arriving from countries subject to the Intermediate or the General tariff, the rate is 50 cents per bunch.

Jamaica.—The Government of Jamaica gave notice on March 20, 1930, that after September 30, 1930, the preferential tariff on Canadian goods would apply only if the goods enter the colony by direct shipment. This was the first instance of action taken in the West Indian colonies under Article VII of the Trade Agreement with Canada which empowers each colony, on giving six months' notice, to require that Canadian products be conveyed without transshipment by ship direct from a Canadian port or by way of one of the other colonies in order to be entitled to the tariff concessions granted in the agreement. Already Canadian preferences on West Indian products are conditional on conveyance direct to a Canadian sea or river port, transshipment being permitted only at any of the colonies.

UNITED STATES TARIFF REVISION

Revision of the United States Tariff Act of 1922 was a subject of interest during the whole period under review and for some time afterwards. Following tariff hearings before the Ways and Means Committee of the House of Representatives the President, at a special session of Congress assembled on April 15, 1929, recommended an "effective tariff upon agricultural products" and "some limited changes" in schedules relating to other industries. A Tariff Bill was introduced in the House of Representatives on May 7, 1929, passed that body on May 28, 1929, and at another session of Congress after hearings before the Senate Finance Committee passed the Senate on March 24, 1930. Numerous amendments had been made as the Bill progressed from stage to stage and in order to reach an agreement on these, conferences were held between representatives of the two branches of Congress. The measure as finally reported by the conference was approved by the President and went into operation on June 18, 1930.

The rate of 42 cents per bushel on wheat and \$1.04 per 100 pounds on wheat flour, established April 6, 1924, under the flexible provision of the 1922 Tariff Act, was incorporated in the new law. The duties on milk and cream increased 50 per cent on June 13, 1929, under the flexible provision, were advanced still more in the new tariff, namely, to 6½ cents and 56.6 cents per gallon respectively. The tariff on potatoes was increased from 50 cents to 75 cents per 100 pounds; cattle, weighing 1,050 pounds or more from 2 cents per pound to 3 cents; lighter cattle from 1½ cents to 2 cents or 3 cents; beef from 3 cents to 6 cents; pork from 1 cent to 2½ cents; bacon and hams from 2 cents to 3¼ cents. To an appreciable extent the duties on fish were unchanged. Fresh lobsters as before are duty free. Another item remaining duty free is standard newsprint paper, of which Canada's export to United States during 1929 was 129 million dollars.

While the importance and scope of tariff items vary greatly, the extent of the complete revision is indicated in some degree by an official statement to the effect that on about 3,300 items in the new tariff, rates on 2,170 are unaffected, 90 are increased, and 235 are decreased.

Special and administrative provisions of the tariff law were extensively revised. Among these is the flexible provision first incorporated into the United States Tariff in 1922. It is retained with modifications but, as before, the President is empowered on recommendation of the Tariff Commission to increase or reduce duties up to 50 per cent or change the basis of valuation for duty purposes from foreign or export value to the United States selling price.

LATIN AMERICAN COUNTRIES

Cuba.—A Canadian Order in Council and a Cuban Presidential Decree of December 3, 1929, renewed until November 22, 1931, a trade agreement under which Canada exchanges her Intermediate tariff for the Cuban General tariff. A Cuban Maximum tariff, established first in 1927, is double the General tariff but apparently is so far inoperative. The Maximum tariff may be applied wholly or in part, to goods from non-treaty countries or from countries which do not accord Cuba most-favoured-nation treatment. A Canadian-Cuban arrangement like the present one has been in force since the inception of the Maximum tariff. In so far as dutiable goods are concerned, United States products (tobacco excepted) are still accorded a Cuban preference of 20 per cent, 25 per cent, 30 per cent, or 40 per cent, over those of any other country in consequence of a Reciprocity Treaty of 1902. Any other instances of unequal tariff treatment of Canadian goods entering Cuba are of a minor nature and arise out of a Cuban-Spanish Treaty, effective from November 5, 1927. These reductions are also granted to a few favoured nations, including France and Italy. Notable among recent Cuban tariff changes is a new rate on potatoes, the leading import from Canada. The General tariff on potatoes other than seed was increased on July 4, 1929, from \$2 per 100 kilograms (220 pounds) to \$5 during the months of November to June inclusive, the high duty season being at the same time extended by two months. The rates for the rest of the year were advanced from \$1 to \$1.50 per 100 kilograms. Cut seed potatoes and others with some restriction as to variety and season still enter duty free.

Peru.—Peruvian laws effective March 30, 1929, June 8, 1929, and January 1, 1930, affected about 130 of the 2,600 items of the tariff. Under the last mentioned law the duty on motor trucks, an important Canadian export to Peru (\$383,892 in 1929) was increased from 1 sol (40 cents) per 220 pounds to 2 soles (80 cents). In addition to the duties there are surtaxes which, although varying slightly at different ports, amount to a little more than one-fifth of the duty. Among the commodities entering largely into Canada's export trade with Peru not affected by the foregoing laws were passenger motor cars (\$299,397 in 1929), condensed and evaporated milk (\$279,865), wheat (\$238,350), and pneumatic tire casings (\$121,414).

New tariffs were introduced in Guatemala, July 1, 1929, and in Mexico, January 1, 1930. Minor alterations were made in the tariffs of most of the other Latin American countries, Argentina being an exception although the Argentine tariff has not been amended much since 1923.

EUROPEAN TARIFFS

The Roumanian customs tariff of April 14, 1927, which was in operation when the Canadian Trade Agreements Act of 1928, effected a most-favoured-nation arrangement with Roumania and six other countries was replaced on August 1, 1929, by a new tariff law. The 1927 tariff enactment consisted of two schedules, minimum rates, and corresponding general rates, 50 per cent higher. In the new Roumanian tariff there are irreducible minimum rates on some goods and the law affords the means of lowering the general tariff in trade conventions with other countries. The 1929 tariff law provided for terminating existing treaties as from March 1, 1930, but a further six months could be allowed for negotiations. The Roumanian tariff arrangement with Canada was based on acceptance by Canada of a most-favoured-nation clause in an Anglo-Roumanian Provisional Commercial Agreement of May 24, 1923. Roumania gave notice on November 26, 1929 to terminate the Canadian agreement. At first the termination was to become effective after six months but the time was afterwards extended.

Other new European tariffs were adopted in: Lithuania, June 2, 1929; Sweden, January 1, 1930; Portugal, January 6, 1930; Russia, February 15, 1930. Some European tariffs were also amended extensively and particularly as regards grain duties. It will be of interest to trace in some detail the extent of such revision in Germany to which Canada exported in 1929, according to Canadian returns, 20 million dollars worth of wheat, rye, oats, barley, and wheat flour.

The German tariff on wheat was increased on July 10, 1929, from 5 to 7.5 reichsmarks per 100 kilograms; on January 20, 1930, to 9.5 reichsmarks; and on March 27, 1930 to 12 reichsmarks. During the same period flour duty rose from 12.5 to 23.25 reichsmarks per 100 kilograms. The General tariff on oats was advanced on July 10, 1929, from 5 to 7 reichsmarks per 100 kilograms; on December 31, 1929, to 8 reichsmarks; on March 27, 1930, to 12 reichsmarks. The rates of 2 reichsmarks for feeding barley and 7 reichsmarks for industrial barley were both raised to 10 reichsmarks per 100 kilograms, and on rye from 5 to 9 reichsmarks. These duties were to some extent determined by a law of December 22, 1929, which established a sliding scale of duties for wheat and rye dependent on prices, and also fixed wheat flour duties at $1\frac{1}{2}$ times the wheat duty plus $4\frac{1}{4}$ reichsmarks— $5\frac{1}{4}$ from March 26, 1930. On this latter date oats and barley were made subject to variable duties dependent on the economic situation. While the foregoing are all General tariff rates applicable to non-treaty countries, like Canada, they became also applicable to all countries in consequence of the termination of certain treaty rates. On July 10, 1929, a French treaty rate (1927) of $11\frac{1}{2}$ reichsmarks on flour terminated and on February 11, 1930, a Swedish treaty rate (1926) of 6.5 reichsmarks on wheat lapsed. On February 11, 1930, Swedish treaty rates of 6 reichsmarks per 100 kilograms on rye and oats and 5 reichsmarks on barley expired. The final rates expressed in Canadian currency were: wheat, \$2.85; wheat flour, \$5.54; rye, \$2.14; barley, \$2.38; oats, \$2.85—all per 100 kilograms (220 pounds) and applicable to imports from all countries.

TURKEY AND EGYPT

A new customs tariff went into force in Turkey on October 1, 1929, and in Egypt on February 17, 1930. The new tariffs compared with the customs schedules replaced contain much more detailed classification of goods and a corresponding variety of rates. The new tariffs also afford the means for imposing discriminatory duties on goods arriving from non treaty states or those which do not reciprocate in granting their lowest tariffs.

Dominion Bureau of Statistics

On the Dominion Bureau of Statistics, administered by the Minister of Trade and Commerce, a detailed report is made annually (Statistics Act, 1918, section 4a) by the Dominion Statistician, the officer in responsible charge. The Bureau operates in several branches and sections, a very brief reference to which is as follows:—

POPULATION (CENSUS, VITAL STATISTICS, IMMIGRATION)

A good deal of the preparatory work looking to the 1931 Census of Population and Agriculture was completed, the scope of the approaching census having been thoroughly canvassed and the schedules and instruction drawn up in tentative form. The plotting of the enumeration areas was completed. The permanent staff in this connection was strengthened, for completion of preparatory analyses, more particularly in connection with the statistics of Occupations and Agriculture. Special studies on Women in Industry and on occupations by racial origins, based on the census of 1921, were carried out.

In vital statistics the usual monthly and annual reports, compiled in collaboration with the provincial Registrars General, were issued, whilst the usual monthly compilations with regard to migration statistics from data supplied by the Immigration Department were also made.

AGRICULTURE

The crop-reporting system was further strengthened and some improvements made in the existing arrangements for annual agricultural statistics with the several provincial Departments of Agriculture with whom the Agricultural Branch of the Bureau collaborates. A considerably enlarged scheme was put in effect in Ontario, and an entirely new system was planned for covering the province of Quebec. Mr. F. J. Horning, Chief of the Branch, resigned during the year, and was succeeded by T. W. Grindley, Ph.D., a graduate of Alberta and Minnesota Universities.

INDUSTRIAL CENSUS

All forms of production outside of agriculture (namely, fisheries, furs, forestry, mines, central power stations, and general manufactures) are covered annually in the Bureau in a series of branches under the above general heading. The organization includes (1) The branch on Fisheries, Furs, Animal Products and Dairying, and (2) the manufactures of Forest Products; (3) the Mining, Metallurgical and Chemical Industries; and (4) General Manufactures, with central filing, compiling and indexing systems. These were maintained at full strength, and issued the usual series of annual and monthly reports. The more important of the latter are the Annual Report on the Fisheries of Canada; Fur Production; Fur Farms; the Dairying Industry; Lumbering; the Pulp and Paper Industry; Wood-Using Industries; Paper-Using Industries; the Mineral Production of Canada; Coal Statistics; Iron and Steel and their Products; Manufactures of Non-Ferrous Metals; Manufactures of the Non-Metallic Minerals; Chemicals and Allied Products; Textiles and Allied Industries; Food Products, Beverages, Rubber, Tobacco and Miscellaneous Manufactures based on Vegetable Products; and General Manufactures. Some fifty or sixty annual reports on specific industries should be added to this list. In addition, monthly records are maintained relating to coal and coke, pulp and paper, automobiles, boots and shoes, and power. From January 1, 1930, a monthly statement of the production of the more important metals and minerals has been issued.

Mr. S. J. Cook, Chief of the Mining, Metallurgical and Chemical Branch, resigned during the year, the position being filled by the promotion of Mr. W. H. Losee, formerly statistician in the branch.

EXTERNAL TRADE

The work in this branch has increased continuously. It now embraces the final and definitive Annual Report on the Trade of Canada, an annual Condensed Preliminary Report on the same subject, a Quarterly Trade Report, as well as a special trade report compiled for the calendar year. The monthly statements brought out include a general review of Canadian trade, an analysis of the trade with the United States and Great Britain, together with some twenty-five bulletins on the import and export trade in special commodities or groups of commodities, which are distributed to a large number of interested concerns. The number of special trade compilations made was larger than in any previous year.

INTERNAL TRADE

In the field of price statistics (which covers wholesale and retail prices, prices of securities, prices of various "services", etc.,) the main development of

the year was the thorough revision of the different index numbers on the new base year 1926, 1913 being the basis previously employed. Improved bulletins on the movement of capital into and out of Canada and the trade balance were issued. A good deal of preparatory work in connection with the proposed census of retail distribution to be taken in 1931, the compilation of which will be carried out in this branch, was completed. A study of the chain store movement obtained considerable publicity. The preparatory work for a monthly barometer of retail and wholesale sales was completed.

TRANSPORTATION AND PUBLIC UTILITIES

In railway statistics a special annual report on traffic by provinces was instituted. In other directions the annual statistics of railways were maintained with little change, as were also the monthly reports on railway operating revenues and expenditures, weekly carloadings, etc. Annual reports on the statistics of telegraphs, telephones, express companies, and central electric stations were issued. The canal statistics were maintained on the usual monthly and annual basis. The Bureau took over during the year the Annual Report on Highways and Motor Vehicle Traffic previously maintained in the Highways Branch of the Department of Railways and Canals. An index of freight rates, on which the branch has been working for some time, was brought some stages nearer conclusion.

EDUCATION

The Annual Survey of Education contained as special features (1) a study of teachers' pensions plans in the different provinces, and (2) additional statistics with regard to higher and university education. Additional compilations of teachers' returns were made for certain of the provinces. The annual report on libraries, which is brought out under the direction of this branch, was also enlarged. The chief of the branch gave a considerable portion of his time to preliminary analysis in connection with the 1931 census, and also completed an extensive investigation into methods of intercensal population estimation in Canada. Special investigations on the statistics of the liquor trade in Canada and of the trend of the salaries of professional and technical officers of the Civil Service (the latter for the Royal Commission of which Mr. E. W. Beatty was chairman) were also completed in the branch.

CRIMINAL STATISTICS

A reconstruction on a considerable scale of the tabular matter issued in the Annual Report on the Statistics of Criminal and other Offences in Canada was worked out during the year and will take effect in the forthcoming issue, the revision adding to the compactness and availability of the data. The work of this branch was the subject of numerous inquiries during the year from authorities in various States of the United States, in view of the interest in that country in the setting on foot of similar records.

GENERAL STATISTICS

The issuing of the Canada Year Book and of the Monthly Review of Business Statistics constituted as in past years the main work of this branch, which also brings out certain statistics at first hand on various subjects that do not fall under the other branches of the Bureau, such as employment, divorce, bankruptcies, etc. A departure of the year that met with pronounced success was the issuing of a handbook in the opening week of 1929, entitled "Canada 1930." The handbook, which was illustrated with numerous rotogravures and

charts, was intended to present in succinct yet comprehensive form the outstanding facts of recent progress in Canada as well as of the current economic and social situation. It will probably be repeated from year to year.

LIBRARY

Following the removal to the present Statistics building, a consolidation of the library was effected and its contents were more conveniently shelved. The total number of statistical publications catalogued is now nearing 60,000. There was a considerable growth in receipts and loans during the year, increasing general use being made of the library for purposes of reference and investigation. An increase of one in the Library staff enabled this work to be handled with increased efficiency.

GENERAL ADMINISTRATION

There has been a steady increase in the volume of correspondence with the public, the number of applications for information daily averaging around 100. The number of reports and bulletins issued by the Bureau daily is now between two and three. The annual revision of the Bureau's mailing lists in this connection shows a growing demand—particularly from the business public—an index of the practical uses being made of the Bureau's various activities. The staff of the Bureau averaged around 250 throughout the past year.

Exhibition Commission

During the first month of the fiscal year the transfer of all exhibition material from the temporary quarters at Gun Wharves, Wapping, to the commission's new warehouse and workshops on Blackburn road, West Hampstead, was completed.

In June the former warehouse of the Immigration Department in Liverpool was closed and all material transferred to West Hampstead.

Due to the increasing activities of the Exhibition Commission the need of additional staff called for the appointment of E. E. Freeland, in July, as Chief of the Commercial Division, and of A. T. Seaman, in October, as Assistant Exhibition Commissioner.

EXHIBITIONS

In close collaboration with the Trade Commissioners in the British Isles, and co-operating to the fullest extent with the Empire Marketing Board of the British Government, the Commission took part in the following exhibitions:—

April 2-13.....	Ideal Homes and Central Trades Exhibition	Bradford.....	Food products.
April 9-20.....	Belfast Grocers and Allied Trades Exhibition	Belfast.....	Food products.
May 1-11.....	Scottish Grocers Exhibition.....	Edinburgh.....	Food products.
May 8-11.....	Royal Dublin Society Show.....	Dublin.....	Food products; natural resources and mfg. goods.
July 3-6.....	Aldershot Command and District Horse Show.....	Aldershot.....	Food products and natural resources.
July 15-20.....	Empire Exhibition.....	Plymouth.....	Food products.
August 13-14.....	Boscombe Carnival.....	Boscombe.....	Advertising propaganda.
Aug. 29-Sept. 11....	Bristol's Annual Trade Exhibition.....	Bristol.....	Food products and natural resources.
Sept. 2-28.....	North East Coast Exhibition.....	Newcastle-on-Tyne.	Food products and natural resources.
Sept. 21-27.....	International Grocers Exhibition.....	London.....	Food products.
Oct. 1-12.....	Food and Cookery Exhibition.....	Hanley.....	Food products.
Oct. 2-10.....	Bristol Grocer Exhibition.....	Bristol.....	Food products.
Oct. 9-19.....	Aberdeen Home Life Exhibition.....	Aberdeen.....	Food products and natural resources.
Oct. 9-19.....	Norwich and Eastern Counties Grocers and Allied Trades Exhibition.....	Norwich.....	Food products.

Oct. 10-16.....	Hull Civic Week and Empire Exhibition.....	Hull.....	Food products.
Oct. 15-24.....	Sheffield Grocers', Bakers', Confectioners and Allied Trades Exhibition.....	Sheffield.....	Food products.
Oct. 22-25.....	51st. Annual Dairy Show.....	London.....	Dairy produce.
Oct. 25-Nov. 2.....	Imperial Fruit Show.....	Birmingham.....	Fresh fruit and food products.
Nov. 2-8.....	Brewers' Exhibition.....	London.....	Barley and hops.
Jan. 14-25.....	Birmingham Grocers', Bakers' and Caterers' Exhibition.....	Birmingham.....	Sample selling; food products.
Feb. 17-28.....	British Industries Fair.....	London.....	Sample selling; ex- hibit of food pro- ducts and manu- factured goods.
Feb. 17-28.....	British Industries Fair.....	Birmingham.....	Heavy manufactur- ed goods and building material.
March 3-8.....	Canada Week (In collaboration with the Publicity Branch).....	Bristol.....	Food products and sample selling.
March 4-15.....	Scottish Grocers' and Allied Trades Ex- hibition.....	Glasgow.....	Food products.
March 24-April 17.....	Daily Mail Ideal Homes Exhibition.....	London.....	Food products and sample selling.

Decorative material, grain, etc., was prepared and shipped, on loan, to the following:—

Migration Committee.....	Hull and District
Rev. Father Pander.....	Polish Exhibition
Crosse & Blackwell Ltd.....	Tropical School of Medicine
Colonial Church Society.....	Southsea
International Boy Scouts Jamboree.....	Birkenhead
Teachers' Exhibition.....	Southampton
Trade Exhibition.....	Scarborough
Empire Overseas Exhibition.....	Darlington
Empire Overseas Exhibition.....	York
Messrs. T. Mottershead & Son.....	Longton Agricultural Show
Educational Exhibition.....	Gainsborough

Material was prepared and shipped and exhibits set up in the following departmental stores:—

John Barker, Ltd.....	London
Army and Navy Stores, Ltd.....	London
Civil Service Supply Association.....	London
Jas. Shoolbred.....	London
Wm. Whiteley, Ltd.....	London
Harrods.....	London
Fortnum & Mason Ltd.....	London
Cooper & Co.....	London
R. A. Lister.....	Dursley
Spooner & Co.....	Plymouth

Material was prepared and shipped and a display made in the windows of the following stores throughout the country:—

Jas. Shoolbred.....	London
Jas. Howell & Co. Ltd.....	Cardiff
M. Oak.....	Bolton
Anglo-Empire Fruit Co., London.....	London
Miller & Steel, Ltd.....	Ipswich
John Edwards.....	Blackburn
D. A. Costa.....	London
Joseph Beckett, Ltd.....	London
Staniforth & Wibley.....	London
J. W. Clay.....	Bournemouth
Co-Operative Society.....	Bradford
Wm. Boniface.....	Plymouth
Lloyds Stores.....	Colchester
Sainsburys Ltd.....	London
Imperial Institute.....	London
North-East Coast Exhibition.....	Newcastle
Trades Exhibition.....	Edinburgh

Decorative and advertising material was sent to ninety-four bazaars and pageants.

ADVERTISING

Advertising material prepared by the Director of Trade Publicity was warehoused, and 138 shipments of this material were made to different points throughout the country. In addition to these shipments, distribution of Trade and Publicity advertising material was made by members of our staff during the Bristol Shopping Week at 400 shops in Bristol.

TRADE INQUIRIES

Since the Chief of the Commercial Division began his duties as liaison officer between the Exhibition Commission and the Trade Commissioners, about 350 trade inquiries have been received at the different exhibitions, and of these upwards of 200 could be answered directly, being simply the question of where such a product could be purchased, when the name of the importer was given from whom the exhibit had been received. The remainder were immediately passed on to the Trade Commissioner of the district. In addition to these, upwards of 5,000 inquiries were received from consumers. These were handled directly by the officer on the stand by giving the name, or names, of the retailers where the articles could be obtained.

SALE OF SAMPLES

On the recommendation of the Trade Commissioners, and after the support of the importers had been assured, the sale of samples was instituted at the exhibitions. This was organized by the Commercial Division in co-operation with the Director of Trade Publicity, who supplied the labels. It is operated on a self-supporting basis, the small margin of profit being sufficient to pay the wages and expenses of the salesladies required at the different stands.

All samples are marked "Samples only", with the word "Canada" prominently shown and not more than sixpence is charged for any one article.

At the five exhibitions where samples have been sold, about 20,000 have been disposed of, and the importers are well pleased with the results.

IMMIGRATION

The Immigration Shows are divided into three classes, according to the type of exhibit, first, those in which a marquee is erected and an exhibit set up therein, of this type, there are four, namely:—

May 22-25—Bath and West Agricultural Show, Swindon.

May 29—Royal Counties Agricultural Show, Southampton.

July 9-13—Royal Agricultural Show, Harrogate.

August 7-9—Royal Welsh Agricultural Show, Cardiff.

Secondly, those in which a 40-foot stand was erected, namely:—

May 29-31—Royal Ulster Agricultural Show, Balmoral.

July 23-26—Highland and Agricultural Society's Show, Alloa.

July 31-August 1—Royal Lancashire Agricultural Show, Blackburn.

August 28-30—Southport Agricultural Show, Southport.

Thirdly, those in which a 20-foot stand was erected, 98 in number, in localities best suited to cover the British Isles.

The commission was responsible for preparing and shipping all material for these shows. Officers from this department attended 34 shows, lasting for two or more days. The commission was responsible for erecting, maintaining and dismantling the exhibits at these shows.

Decorative and advertising material was sent to 88 schools and training centres.

Propaganda displays were made in 50 windows on account of immigration. These windows were placed at the disposal of the commission by the Ministry of Labour and different shipping companies throughout the country.

During the year, 879 cases were received in the warehouse and distributed. The average weight of each case is two hundredweight and the number of pieces of literature in each runs from 300 to 5,000, according to the size of the pamphlet.

SCOPE OF COMMISSION'S WORK

The activities of the Exhibition Commission fall naturally under two distinct headings, Trade and Commerce, and Immigration.

Under the latter heading, the commission's work is restricted to the preparation, setting and dismantling of the larger stands and exhibits, and to the preparation and shipping the smaller stands to the Immigration Agent of the locality. The selection of all fairs is entirely in the hands of the Immigration Department.

Under the former heading, the Exhibition Commissioner, in collaboration with the Trade Commissioners in the British Isles, select those exhibitions which promise the greatest returns for the outlay as well as the fairs and exhibitions in which the Empire Marketing Board is participating. In these latter, space and stand are supplied free of charge to the different dominions and Colonies who wish to take advantage of the opportunity.

The erection of the pavilion, and all preparatory work for the International Exhibition at Antwerp, which opened on April 26, 1930, was practically completed by March 31, despite the fact that it was not until late in the year that official sanction was finally given for Canada's participation. Another exhibition in this category is the British Empire Trade Fair, which is to open in March, 1931, in Buenos Aires, Argentina. The plans have been drawn up and the contract placed for the erection of Canada's pavilion. Canadian manufacturers and producers had taken about 60 per cent of the exhibit space by the close of the fiscal year.

The British Industries Fair—held in two sections, one at Olympia, London, the other at Castle Bromwich, Birmingham—is an exhibition which calls for special mention being, next to the Leipzig Fair, perhaps the most important and productive annual exhibition in the world. It is local to the extent that only products and manufactures of the British Empire can be shown, but it is international in that buyers from practically every country of the world attend. It is, therefore, of the utmost importance that the opportunities here offered be taken advantage of to the fullest possible degree. Without exception, every Canadian firm which exhibited at the British Industries Fair was satisfied with the results obtained. It is only regretted that a greater number of Canadian firms did not exhibit.

The explanation is simply that the Canadian producer does not appreciate, in many cases does not know of, the vast opportunities which this Fair offers for extending his market. All parts of the world are reached, and orders having been taken by Canadian firms from countries as widely separated as Germany, Australia and the Argentine Republic.

Motion Picture Bureau

The Director of the Canadian Government Motion Picture Bureau reports that the last fiscal year was one of the most successful in its history. In practically every branch and phase of their work there was a substantial and encouraging increase in the volume of production and distribution, and the Bureau's activities were further extended into many new fields.

In the Motion Picture Division the volume of film prepared and processed exceeded that for the previous fiscal year by approximately 20 per cent, while the total number of copies of films in active circulation on March 31, 1930, was approximately 35 per cent greater than on March 31, 1929. There was a correspondingly large increase in the volume of production of photographs, lantern slides, enlargements, transparencies and similar material by the Still Photographic Division, while the number of photographs, etc., issued for publication and other such purposes, and consequently the amount of publicity and advertising thereby achieved, was considerably greater.

Of especial note is the increasingly greater extent to which the Bureau's facilities for the production and distribution of motion and still photographic materials were taken advantage of by other Government Departments and organizations. Not only was the total production of such special departmental material increased substantially, but the saving to the Government organizations making use of the service was increasingly large owing to the Bureau's ability to produce such material at lower cost than heretofore, owing to the installation of more up-to-date processing equipment and the introduction of more modern methods.

While the annual appropriation for the Bureau was increased by \$25,000, to make a total of \$75,000 for the fiscal year under review, as compared to \$50,000 for the previous year, the total contingency expenditure was greater only by virtue of increased volume of production, materials used and the natural extension of the Bureau's activities in all fields. The total expenditure of the Bureau for 1929-30 amounted to \$74,128.60, but of this amount fully 30 per cent was expended for the purchase and installation of new equipment and the provision of additional facilities to meet the requirements of the increased volume of production.

Due to the rapid and widespread development of the sound film to such an extent that this type almost completely displaced the silent film in so far as the theatrical field was concerned, and the fact that the Bureau lacked the means to produce sound films, there was a decided decrease both in the number of theatrical bookings and the revenue derived therefrom during the fiscal year under review. Since the revenue derived from theatrical bookings is probably our largest individual source of income, there was, as a consequence, a slight decrease in the total revenue of the Bureau as compared with that of the previous fiscal year. That the loss in revenue may be fully attributed to this condition is borne out by the fact that the revenue derived from other sources was substantially greater than for the previous year, but was not sufficient to offset the loss in revenue from theatrical distribution.

The total revenue figures for the past four fiscal years are as follows:—
1926-27, \$15,128.88; 1927-28, \$17,912.06; 1928-29, \$25,833.29; 1929-30, \$23,416.18.

DISTRIBUTION OF FILMS

The total number of films in active circulation throughout the world on March 31, 1930, was 3,589, representing a total footage of approximately 2,900,000, as compared with 2,779 films representing a total footage of approximately 2,223,200 in active circulation on March 31, 1929. From exhibition reports submitted by our distribution agencies, there is ample evidence that, during the fiscal year under review, there was a much greater "coverage" in each territory in which films were being circulated and exhibited the previous year, while in many new territories, particularly in the Scandinavian countries, central Europe and the West Indies, where heretofore little or no circulation had been secured, wide exhibition of the Bureau's films was achieved during 1929-30.

The schedule below indicates the distribution of the films in active circulation as of March 31, 1930:—

Territory	In Theatrical circulation and revenue- producing	In Theatrical and Non-theatrical circulation, but not revenue- producing
Australia, New Zealand, Tasmania, etc.	220 (x)	
Austria, Czechoslovakia and other Central European Countries		43 (xx)
Belgium		41 (xx)
Canada	150	400
China		12 (xx)
Cuba		22 (xx)
Czechoslovakia	25	15 (xx)
France, Switzerland		56 (approx.)
Germany		63 (xx)
Great Britain, Irish Free State, etc.	99	191
Hawaii		24 (xx)
Holland		32 (xx)
India		4
Italy		121 (xxx)
Japan		14 (xx)
Norway, Sweden, Denmark	60	51 (xx)
South Africa		55 (xx)
South America		28
Straits Settlements, Netherlands East Indies, etc.	80	20 (xx)
United States		1,594
West Indies, Caribbeans, etc.		70
Total	639	2,856

(x) Revenue-producing films in theatrical circulation also used for non-theatrical showings.

(xx) Films in non-theatrical circulation also used for non-revenue-producing theatrical showings.

(xxx) Includes 6 duplicate negatives furnished Italian Government from which 15 positive prints are made at their expense and circulated through the Government film organization L.U.C.E.

No E.—The above schedule does not include films or parts of films furnished during the past year to replace films which had become worn, destroyed, damaged or out-of-date.

It is conservatively estimated that approximately 75,000 feet of replacement film was produced and furnished distributors during the past fiscal year.

The above schedule does not include, either, a large number of films purchased by the Canadian National and Canadian Pacific Railway Companies or loaned to them for publicity and advertising purposes; nor does it include a large number of films loaned for short periods to Canadian Pacific, White Star, Cunard, Hamburg-Amerika, North German Lloyd, Canadian-Australian and other steamship lines, for screening on their passenger vessels at sea; nor does it include a large number of films made from our negatives by organizations such as the above, the Ontario Government, etc., for their own purposes.

FILM DISTRIBUTION—GENERAL CONDITIONS, ETC.

Conditions in the motion picture industry during the past fiscal year throughout the world were not nearly so favourable in so far as the Bureau was concerned as during the previous fiscal year. In the theatrical field, the almost complete "turn-over" to sound films and the tremendous growth of the number of theatres and other places of film exhibition making use of sound films very greatly curtailed the outlets for silent product and this caused a very considerable drop both in the amount and extent of theatrical circulation secured for Bureau films as well as a distinct diminution of the revenue derived from this source.

On the other hand, in the educational and other non-theatrical fields where the use of sound films has not grown to any extent and where the use of films is daily becoming more widespread, our distribution both in volume and extent has shown an increase of nearly fifty per cent.

DISTRIBUTION OF FILMS IN CANADA

Theatrical.—Owing to the extremely rapid growth in the use of sound films and the fact that the great majority of the theatres to whom we had formerly booked our product were, during the past fiscal year, equipped for the exhibition of sound films, the theatrical distribution of our films in the Dominion has been somewhat less than in the previous year but this is a condition beyond our control and cannot be eradicated until the Bureau is able to meet market requirements and competition in this field by supplying sound films.

Non-theatrical.—Due chiefly to the growing use of motion pictures for educational and other non-theatrical purposes, the domestic distribution of our films in this field increased very considerably during the past fiscal year. This distribution has been largely handled directly by the Bureau through the maintenance of a loan library of our films available at a nominal charge to organizations, institutions and individuals who are able to make use of them. The Bureau has also co-operated fully with the various Provincial Governments, the railway companies, educational institutions and others in making groups of our films available through them in the non-theatrical field in this country and the number of films circulated in this manner continues to grow daily.

DISTRIBUTION ELSEWHERE IN THE BRITISH EMPIRE

United Kingdom and Irish Free State.—During the fiscal year under review, the distribution in both the theatrical and non-theatrical fields remained about the same in volume and extent as during the previous fiscal year. The introduction and wide use of sound films in this territory curtailed the outlet for films in the theatrical and commercial fields and minimized what appeared to be excellent prospects for much increased circulation at the commencement of the past year. However, the distribution held its own with the previous year and, as soon as the Bureau is in a position to provide sound films, it is fully expected that the theatrical distribution will increase very considerably. In the non-theatrical field, through co-operative arrangements with the Federation of British Industries, the Empire Marketing Board, the British Empire Institute, and other organizations, the circulation of our films has shown a satisfactory increase.

Australia, New Zealand, Tasmania, etc.—Due to new legislation favouring the use of films of British origin, the circulation in the Antipodes has increased very considerably and the revenue derived therefrom has shown a very substantial increase. Circulation in the non-theatrical field has also shown progress due to the growing use of films for education and welfare purposes. The latter circulation has been increased largely through the efforts of the Trade Commissioners in this territory.

South Africa.—Distribution in this country continues to show a satisfactory increase, particularly in the educational and other non-theatrical fields. The theatrical distribution is handled through the largest commercial film distribution and theatre-operating concern in this territory and has been most satisfactory.

British West Indies.—The circulation of the Bureau's films in both the theatrical and non-theatrical fields has increased very largely in the various parts of the British West Indies and in the Caribbean countries which have been grouped as one territory for distribution purposes. During the past year, arrangements were made with several commercial film companies to handle selections of the Bureau's films and they have been widely exhibited in increasingly large numbers. In the non-theatrical field, through the efforts of the Trade Commissioners, many special film showings have been arranged, while many films have been made available to various organizations for the same purpose. The number of films in active circulation in the West Indies has, during the past fiscal year, been increased by more than 1,000 per cent.

Straits Settlement.—In this territory, in which the Netherlands East Indies are also grouped, more than twice the number of films as during the previous year have been widely circulated in the theatres through arrangements made with commercial firms operating here by the Trade Commissioner in Java. Practically every theatre in this territory has been exhibiting periodically.

DISTRIBUTION IN THE UNITED STATES

Theatrical.—Theatrical circulation in the United States has not been as great as it was hoped during the past year. The growth of sound films and the extreme competition of the more widely known domestic product have been the chief obstacles but, despite conditions in this field, theatrical distribution has shown a quite substantial increase.

Non-theatrical.—Non-theatrical distribution in the United States is perhaps the Bureau's most prolific and valuable field and has shown a marked increase each year. During the past fiscal year, the number of agencies with whom arrangements have been made for circulation either nationally or territorially has increased by five, making a total of 50. The number of films placed in circulation through these agencies throughout the United States has increased by about 35 per cent and the number of showings secured, while not definitely estimable, is unquestionably much greater.

DISTRIBUTION IN FOREIGN COUNTRIES

Norway, Sweden and Denmark.—Heretofore, what circulation was secured in these countries was limited and sporadic and chiefly in the non-theatrical field. During the past fiscal year arrangements have been concluded with the Government-controlled film agencies in these countries to circulate regularly to the chief theatres in these countries a minimum of ten films per year, and a plan whereby the films for each country shall be interchanged periodically has been developed. The Bureau is now receiving wide circulation in the larger theatres throughout these countries under the above auspices, while a certain amount of non-theatrical circulation is being secured through the efforts of the Trade Commissioner at Oslo.

Belgium.—Considerable theatrical circulation is being secured in both the theatrical and the non-theatrical fields, through a co-operative arrangement with the "Université Cinographique Belge," to whom a large number of films have been supplied. Extensive and valuable circulation is being secured not only in Belgium but in France, Holland and Denmark, among educational, welfare and similar organizations and institutions.

Holland.—Extensive theatrical and non-theatrical circulation is being secured in this country by a large commercial agency who purchase groups outright, and their distribution includes certain portions of Denmark and Belgium. In the non-theatrical field, considerable circulation is being obtained through the efforts of the Trade Commissioner at Rotterdam, who has a supply of films on hand available for this purpose.

France and Switzerland.—Due to restrictive legislation against foreign films, the wide circulation enjoyed some years ago in this territory has gradually become negligible, but during the year under review arrangements have been concluded with the largest domestic film concern—"Aubert-Franco Films"—to distribute a series of pictures and, while it is too early to predict what progress will be achieved, circulation in France and Switzerland has already shown a very favourable increase. In the non-theatrical field, considerable circulation has been achieved in this territory through the efforts of the Legation and of the Trade Commissioner's office, and through the supply of special films to a number of well-known lecturers.

Germany.—Circulation in Germany has shown a greater increase than probably any other foreign country during the past year. Extensive theatrical and non-theatrical circulation has been obtained through co-operative arrangements with the North German Lloyd Company, which controls Germany's largest film concern "UFA," and with the Hamburg-Amerika Steamship Company. Through these concerns wide distribution has been secured in German theatres as well as a large number of non-theatrical bookings, and their own officials and lecturers have been supplied with copies of special films to be shown in conjunction with travel promotional efforts. In addition, considerable non-theatrical circulation has been arranged by the Trade Commissioner in Germany, with whom a supply of films is kept available for this purpose. During the past fiscal year some five or six well-known German lecturers were supplied with films to illustrate talks on Canada.

Italy.—In Italy, where the Government exercises rigid control of the exhibition of films and there are regulations requiring that at every film performance an educational film must be shown, the Bureau continued to benefit by a co-operative arrangement with the Government's film organization—L.U.C.E.—to whom duplicate negatives of selected groups of the Bureau's films were supplied. From these negatives, the L.U.C.E. reproduce at least fifteen positive copies from which the widest circulation in both the theatres and in non-theatrical fields under the auspices of the Italian Government is secured.

South America.—The growth in the use of sound films in the chief countries of South America has, to some considerable extent, affected the extent of circulation of the Bureau's product but, despite these adverse conditions, the volume of circulation has not decreased greatly and has been more than offset by increased non-theatrical exhibitions and special showings arranged or made possible by the Trade Commissioners on this continent. To increase the latter type of circulation, groups of films have been placed at the disposal of each of the Trade Commissioners, and arrangements are being made for interchange between offices.

China and Japan.—The Far East does not provide an exceptionally good field, but notwithstanding quite substantial distribution in China and Japan has been secured through the efforts of the Trade Commissioners in these countries, who have been able to make arrangements with film circuits, theatres and other organizations to show the Bureau's films from time to time. Some non-theatrical distribution has also been secured through the International Y.M.C.A. Motion Picture Bureau, and through the purchase from time to time by native educational organizations of prints of our films.

PRODUCTION AND DISTRIBUTION OF STILL PHOTOGRAPHIC MATERIAL

During the past fiscal year, the activities of the Still Photographic Division have probably expanded to a greater extent than during any year of its existence: the volume of production has increased fully 25 per cent.

During the past fiscal year the production of still photographic materials for the Canadian Government Exhibition Commission has been taken over—work which was formerly done either by the Natural Resources Intelligence Service or secured from outside sources. In addition, a great increase in the volume and extent of photographic work for the National Parks of Canada Branch, the Department of Immigration and Colonization, and the Agricultural Department is to be noted. In the latter case, the work has been largely of a technical and scientific nature.

Other developments have been the undertaking of special photographic work for the National Research Council and the Experimental Farm, and greater activities in supplying photographs to news agencies and publications.

CO-OPERATIVE WORK WITH GOVERNMENTAL DEPARTMENTS AND ASSOCIATED ORGANIZATIONS

The production of motion picture and still photographic material for various governmental departments and associated organizations, has shown a considerable increase.

Among the features of the development of this branch of our work during the past fiscal year has been the taking over of the motion picture equipment of the Photographic Section of the Royal Canadian Air Force and the undertaking of all motion picture production work for this organization; the increased number of technical and scientific films produced for various government departments; and the taking over of practically all motion picture production work for the National Parks of Canada Branch heretofore done by outside commercial concerns.

The governmental departments and branches thereof, and other organizations in some way associated with the Government Service, for whom the Motion Picture Bureau has produced motion pictures and still photographic material, on a co-operative basis, during the past fiscal year, include:

- Air Services, R.C.A.F.
- Canadian Legation, Washington, D.C.
- Canadian Legation, Paris, France.
- Canadian War Graves Commission.
- Canadian National Railways.
- Canadian Pacific Railway.
- Canadian Government Trade Commissioners.
- Canadian Geographical Society.
- Canadian Forestry Association.
- Canadian Clubs, Association of.
- Central Experimental Farm (12 Divisions).
- Chamber of Commerce, British West Indies.
- Civil Service Commission.
- Department of Agriculture
 - Dairy and Cold Storage Branch
 - Entomological Branch
 - Fruit Branch
 - Health of Animals Branch
 - Live Stock Branch (7 Divisions)
 - Publications Branch
 - Seed Branch.
- Department of Immigration and Colonization.
- Department of Insurance.
- Department of the Interior:
 - Secretary's Branch
 - National Parks of Canada Branch
 - Forestry Branch
 - Natural Resources Intelligence Service
 - North West Territories and Yukon Branch.
- Department of Labour.
- Department of Marine and Fisheries:
 - Fisheries Branch
 - Fish Culture Service
 - Deputy Minister's Office
 - Hudson Straits Expedition.
- Department of Mines:
 - Administrative Branch
 - Geological Survey Branch
 - Mines Branch
 - National Museum.
- Department of National Defence:
 - Minister's Office
 - Deputy Minister's Branch
 - Historical Section
 - Imperial War Graves Commission
 - Supply and Transport Services
 - Canadian Small Arms School
 - Signal Services.

Department of Pensions and National Health.
 Department of Public Works.
 Department of Railways and Canals.
 Department of the Secretary of State.
 Department of Trade and Commerce:
 Deputy Minister's Office
 Commercial Intelligence Service
 Electricity and Gas Inspection Service
 Exhibition Commission
 Weights and Measures Branch
 Bureau of Statistics.
 Dominion Archives.
 House of Commons (Speaker, Sergeant-at-Arms, etc.).
 High Commissioner's Office, London, England.
 National Council of Women.
 National Research Council.
 Parliamentary Press Gallery and correspondents.
 Prime Minister's Office.
 Provincial Government of British Columbia.
 Provincial Government of Manitoba.
 Provincial Government of New Brunswick.
 Provincial Government of Nova Scotia.
 Provincial Government of Ontario.
 Provincial Government of Quebec.
 Provincial Government of Saskatchewan.
 Poppy Day Committee.
 Post Office Department:
 Postmaster-General's Office
 Secretary's Branch
 Staff and Publicity Branch.
 Patent and Copyright Office.
 Railway Commission.
 United States Legation, Ottawa, Ont.

PROSPECTS FOR DEVELOPMENT AND EXPANSION

Just at the close of the fiscal year under review, the Bureau began the transference of its operations to larger and more modern quarters in one of the buildings of the National Research Council. The plant, specially reconstructed for the purpose, will, with more modern equipment either installed or to be installed, provide for the production of all types of film and photographic material by much more efficient and economical methods and will have much greater capacity than the old plant. It will also provide for the entry of the Bureau into new fields of activities such as the production of sound and 16-mm films and special types of technical films and photographs such as microscopic pictures, animated drawings, film slides, etc.

The 16-mm. film—a new type of motion picture that has become recognized as the universal sub-standard size throughout the world—has not only been the means of greatly extending the use of films in the non-theatrical fields particularly for educational, lecturing and advertising purposes, but is now rapidly displacing the use of standard film for such purposes owing to its greater safety and ease in handling and less cost. The Bureau has installed complete semi-automatic mechanical equipment of the latest type for production of this type of film and will enter this field on a large scale during the current fiscal year.

It is expected in the near future to actively enter the production of sound films for theatrical use. Already some preliminary work in this connection has been done, using the facilities of commercial studios, and the results have not only proven satisfactory but the reaction to the films themselves has indicated that there would be a large and profitable field for them.

Publicity

The branch of the Director of Publicity of the Department of Trade and Commerce has during the year continued to carry on various advertising campaigns designed primarily to expand Canadian export trade. In addition, however, to these activities the branch, by reason of an increase in staff, has been able to prepare for use in various newspapers and periodicals throughout the Dominion and elsewhere informative articles and news material.

With respect to advertising conducted during the year, the following statement gives some idea of the number of messages carried, as based upon the circulation of publications in which various advertisements appeared:—

August 24, 1929, one-page advertisement appearing in 125 daily newspapers, financial papers, magazines and general media: total circulation, 2,856,448.

Week of December 9, 1929, advertisement in 604 weekly newspapers, 10 by 5 columns: total circulation, 960,456.

Week of January 9, 1930, advertisement 280 lines by 6 columns in 126 daily newspapers, financial papers, magazines and general media: total circulation, 3,141,944.

From August, 1929, to March, 1930, one- and two-page advertisements appeared in a selected list of trade papers. Ten pages were given to 42 media, and four pages to 2 media: total circulation, 1,435,328.

Total messages distributed in 1929-30 through the above media, 8,394,176. This compares with a total number of messages distributed in 1928-29, amounting to 7,630,931.

In addition to the above advertising placed exclusively in Canada, the branch undertook through an advertising agency to place a succession of three part-page advertisements in three of the most prominent daily publications in Buenos Aires, the object of this advertisement being to do certain spade work in connection with the forthcoming Empire Exhibition to be held in that city in February of 1931. These advertisements were well displayed and secured a certain amount of editorial comment. Further advertising was placed in certain Canadian and foreign annual publications, which were regarded as highly useful for reference purposes.

It may again be stated by this branch that in connection with the year's advertising placed in various publications there has been gratifying editorial reaction, generally indicative of a desire on the part of the publications in question to co-operate in the efforts of the branch to create and expand the export consciousness of the Canadian people. This has been particularly true in connection with the trade journals, whose demand for reading matter to supplement the advertisements placed is constantly growing. An endeavour has been made to select a group of trade journals throughout the Dominion, as representative as possible of the various industries of Canada engaged in or interested in export trade. These journals, with few exceptions, have co-operated in a very satisfactory manner with the branch in furthering the efforts of the Trade Commissioners of Canada to secure new markets for their various clients. Their numbers are constantly increasing, but it has been the policy of this branch to secure from any applicants for advertising all the information possible regarding the industries which they represent, and to have them justify their claims as proper media for the advertising of export trade. The researches conducted by many of them in this direction have been highly valuable.

During the year there has been a considerable demand from various United States publications for advertising from this branch. So far, however, no expenditures have been made in this direction.

The contract entered into between the Department of Trade and Commerce and Reuters Ottawa Bureau on May 1, 1928, for the preparation of a weekly mail service to at least 100 of the principal papers of Central and South America, Mexico and Cuba, aggregating at least 50,000 words annually at a cost of \$6,000 per annum, has in the opinion of this branch been carried out in a highly satisfactory manner. As a matter of fact, the number of papers to which this service

in Spanish has been sent by Reuters now numbers over 200 instead of 100, and the aggregate wordage is approximately 65,000 instead of 50,000. In addition, the company is now undertaking to send selected Canadian photographs to a number of the papers which are now taking the news service. The company also undertakes to keep in close touch with the Canadian Trade Commissioners in the various countries concerned, and to secure from them suggestions as to any improvement which can be made in this service which has as its purpose the promotion in Latin American countries of interest in Canada and Canadian activities, commercial, financial and industrial. All items sent by this service have been mailed also to the Canadian Trade Commissioners in the countries referred to.

This branch has had in mind for some time past the supplementation of this news service by a certain amount of advertising in a selected list of the publications of Latin American countries.

Throughout the year a daily radio news service has been compiled by the Canadian Press and broadcasted free through the auspices of the Department of Marine and Fisheries to Pacific liners. Prior to the inauguration of this service, which is paid for by this branch at the rate of \$100 a month, complaints had been received from persons returning from or going to the Orient or elsewhere, that the bulk of news transmitted was of almost purely United States origin. The service now being broadcasted is almost entirely of British and Canadian origin. The suggestion has been made that a similar service be provided for Atlantic liners.

This branch has during the fiscal year prepared and distributed a weekly review of Government statistics and a number of brief articles based on the reports of the Canadian Trade Commissioners abroad. These have been given wide publicity throughout Canada, and have greatly helped to make known the value of the service performed by the Dominion Bureau of Statistics and the Commercial Intelligence Service. Special publicity campaigns have been carried out to arouse interest in the International Exhibition at Antwerp and in the British Empire Trade Fair at Buenos Aires. Special news articles have been issued from this branch in connection with appointments or changes in the Commercial Intelligence Service and the arrival in Canada of various Trade Commissioners, and in connection with the changes in personnel of the Board of Grain Commissioners of Canada. In co-operation with Mr. D. G. Gerahty, Director of Canadian Publicity in the United Kingdom, the branch has secured publication of numerous photographs and news items supplied by Mr. Gerahty, and was able to give wide publicity to the successful campaign in Bristol known as Bristol Canada Week.

Special lengthy articles have been prepared for many important magazines, and special editions of newspapers throughout the world. In addition, special articles and year-end reviews have been prepared and generally circulated throughout the daily and financial press of Canada, and in various trade publications.

During the year the Department has worked in satisfactory co-operation with the Canadian Press and Reuters in the dissemination of news.

TRADE PUBLICITY IN GREAT BRITAIN

The Director of Trade Publicity in Great Britain reports as follows:

The conclusion of the second year of this Branch's existence shows a very great extension in its activities. Probably the most important work accomplished has been arranging window and counter displays in fruit shops and groceries throughout the British Isles. It will readily be seen that the creation of a window display by a retailer of Canadian goods which he is stocking, completes the last link in the chain of distribution between the importer and the consuming public. Manifestly window displays purely for display purposes and not of goods which are actually in stock, have little value.

It has been for many years the practice in this country for retailers to place a high valuation upon space in their windows allocated for the display of proprietary articles; such space is easily rented. It has been the object of this branch to provide the retailer with attractive display matter, which costs a considerable sum in the mass, but when worked out on a basis of so much per retailer, is trifling.

During the year the number of grocers making a display of Canadian products, in practically all cases for a period lasting one week, totalled approximately 2,200. This figure does not take into account what has in a large number of cases occurred, that the same display matter has been used a second and a third time.

In addition to displays secured in the windows of grocers, a number in excess of 11,000 fruit shops, during the Canadian apple season from November to April, displayed sets of apple advertising material. The preponderance of displays of apple material secured is accounted for by the fact that this branch had the services of the Fruit Trades Federation, with ready-made machinery for distribution, which greatly facilitated the work. The latter was also facilitated by the operation of the Merchandise Marks Act, which is intended to make the people of this country conscious, where they were not conscious before, of the origins of the commodities they purchase.

Canada weeks were organized in two cities during the year, Glasgow and Bristol.

SPECIAL DISPLAYS BY THE LEADING DEPARTMENT STORES

During the year under review arrangements have been made with the following important stores in London to organize special displays of Canadian produce: William Whiteley's; Shoolbred's; Army and Navy Stores; Civil Service Supply Association; Haymarket Stores; and John Barkers. The above firms, who have excellent facilities for display, devoted important windows and valuable space in the interior of the stores, to an exhibition of Canadian products, which was not only a commercial display, but assisted to a very appreciable extent with grain, processed fruits, plaques and other matter loaned by the Canadian Government Exhibition Commission.

UNPAID PRESS PUBLICITY

The most important function of the branch from its inception has been the securing of unpaid space for publicity matter in the British daily press, trade press, and magazines. During the year this work has been carried on with great success. In addition a certain amount of matter largely focussed on exhibitions has been disseminated. A number in excess of 15,000 press cuttings has by this means been secured, giving to Canada prominence in the news of the day more than that given to any other portion of the British Empire, if sporting news be excepted.

Expressed in monetary terms, on the most conservative basis of calculation, bringing in mind the ordinary advertising rates of publications in this country, publicity secured by this branch has greatly exceeded the total appropriation expended by the branch.

APPRENTICE GROCERS' SCHOLARSHIP TOUR OF CANADA

Mr. C. L. T. Beeching, O.B.E., Secretary of the Institute of Certified Grocers, at the head of a party of five students of the Institute, sailed in the *Laurentic* on Friday, August 16, 1929, for Canada, where they made a tour of food producing centres in Eastern and Central Canada. The tour was arranged by the Publicity Branch in co-operation with the Institute, and very able assistance was rendered by the Canadian National Railways.

LISTS OF STOCKISTS OF CANADIAN FOOD PRODUCTS

An innovation which has been well received, has been the printing of lists of stockists of Canadian food products in the areas where exhibitions are being held. This provides a simple method of informing the public where they may buy any particular Canadian product in which they are interested. Lists of stockists have been prepared in the following districts: Hull, York and district; Bristol and Bath; Glasgow; and the North-East Coast Area.

EXHIBITIONS

During the year the Publicity Branch actively co-operated with the Canadian Government Exhibition Commission by making all publicity arrangements at twenty-four exhibitions. The assistance rendered consisted of preparing advertisements in catalogues and other special publications devoted to the exhibitions, and in certain cases where there was sufficient justification, in preparing advertisements in the daily press and trade press. Publicity matter designed for free insertion was distributed to the press in all cases, with varying results.

EXHIBITS AT SCHOOLS

Much of the printed matter prepared by this branch, both letterpress and illustrated, has been found, although not designed to that end, to have a considerable educational interest. It has been thought advisable in all cases to meet the request of schools for printed matter. A number of schools have spontaneously offered prizes to their pupils for the best coloured copies of our posters.

LECTURES AND ADDRESSES

The Director of the branch has received a number of applications from time to time for lecturers and speakers on Canadian subjects. In certain cases he has complied himself, and in others arranged for speakers. These have included certain paid lecturers fully qualified to speak on their subjects, and prominent Canadians in London such as Mr. W. C. Noxon, Agent General for Ontario, Mr. C. J. Hanratty, Chief of the Press Bureau of the Canadian National Railways, and others.

EMPIRE WEEKS

During the course of the year Empire Weeks have been organized by the Empire Marketing Board in the following towns and cities in Great Britain:

London, Plymouth, Walton-on-Thames, Clapham, Staines, Chingford, Belfast, Southampton, Bromley, Abertillery, Hull, Aldershot, Fort Talbot, and Mexborough.

In conjunction with these Empire Weeks, the Publicity Branch has co-operated with the Exhibition Commission and with the Empire Marketing Board.

Board of Grain Commissioners for Canada

MOVEMENT AND HANDLING OF 1929 WESTERN CANADIAN GRAIN CROPS

The outturn of the 1929 grain harvest in the Prairie provinces was a great disappointment, not only to farmers but to transportation and industrial interests and the grain trade generally. And to make matters worse, the prospect of marketing the surplus abroad at a price ensuring a good return to farmers appeared more difficult as the season progressed. The wheat crop of 1928 had proved to be some 543 million bushels, far exceeding that of any previous season whilst Argentina also reaped the largest crop in its history and the United States had a substantial surplus to market. The result of this was a volume of export grain far in excess of the requirements of importing countries, and the carry-over at the end of the season was the largest ever known.

The 1929 crops in Europe, both of wheat and coarse grains, turned out to be of much larger volume than usual. This was a particularly fortunate circumstance for those countries usually importing considerable grain to augment native production, as owing to financial stringency it was essential that every effort be made to utilize their own grain and avoid the necessity of importing further supplies as far as possible. To ensure this, and to encourage an increased home production, Germany, France and Italy placed heavy duties upon imported grain and flour. France also ordered millers to use 97 per cent home grown wheat in milling, and Germany ordered that at least 50 per cent of the amount milled be home-grown wheat.

In spite of these conditions, Argentina continued shipping its surplus to Europe throughout the fall season; the storage facilities in that country being limited, thus making essential the movement of the crop to make room for the crop to be harvested in the winter. A great deal of this grain arrived in European ports unsold to be offered for what it would fetch, and as the storage facilities were already fully taken up, it became necessary for purchasers of the grain to charter the vessels in which it arrived as storage boats for periods of from one to three months. This flood of Argentine wheat not only depressed price levels, but effectually cut off the usual demand for North American wheat, so that the possibility of marketing the carry-over of 1928 grain, plus the surplus from the 1929 crop, without leaving another large carry-over appeared extremely remote.

In order to maintain favourable financial and business conditions throughout the country, and to provide capital for the development of natural resources, Canadian exports must exceed the value of imports and thus provide new capital to the extent of the difference. The effect of the substantial reduction in the volume of grain exported during the season of 1929-30 to date has already been quite pronounced in all parts of the country.

The grading of the wheat crop is remarkably high, as will be seen from Table appended. The quality of the Argentine crop, on the other hand, is very poor and the amount of exportable surplus far below the average. A larger proportion of the European import requirements during the balance of the crop year will be purchased in North America, and the superior quality of Canadian wheat will undoubtedly ensure Canadian exporters receiving a large share of the business.

The following tables indicate (a) the total quantities of wheat and other grains received at principal terminal points during the first eight months of the crop year 1929-30 (ending March 31, 1930); and (b) the number of cars of new wheat, and percentage, grading into each of the principal grades during the first eight months of the crop year 1929-30, as compared with the same period of the year previous.

TOTAL RECEIPTS AT TERMINAL POINTS IN THE WESTERN GRAIN INSPECTION DIVISION, AUGUST 1, 1929, TO MARCH 31, 1930

	Wheat	Other grains	Total
	net bus.	net bus.	net bus.
William-Port Arthur.....	88,435,516	22,094,215	110,529,731
Vancouver.....	39,387,108	960,434	40,347,542
Victoria.....			
Prince Rupert.....	1,118,591	395	1,118,986
Canadian Government Interior Terminal elevators—			
Calgary.....	2,790,970	154,141	2,945,111
Edmonton.....	1,877,507	703,224	2,580,731
Moose Jaw.....	2,675,272	343,571	3,018,843
Saskatoon.....	2,590,988	159,194	2,750,182

TRADE AND COMMERCE

(b) GRADING OF NEW CROP WHEAT, BY PRINCIPAL GRADES, INSPECTED TO THE END OF MARCH, 1930, AS COMPARED WITH THE GRADING OF THE PREVIOUS YEAR'S CROP FOR THE SAME PERIOD

	1929		1928	
		%		%
1 Manitoba Hard.....	2,733 cars or	2.62	..... cars or	.....
1 Manitoba Northern.....	37,375 "	35.86	3,886 "	1.44
2 Manitoba Northern.....	40,611 "	38.96	34,407 "	12.74
3 Manitoba Northern.....	14,870 "	14.26	56,032 "	20.75
Number 4.....	2,383 "	2.29	55,911 "	20.7
Total contract grades.....	97,972 cars or	93.99	150,236 cars or	55.63
Number 5.....	607 "	0.58	49,079 "	18.17
Number 6.....	232 "	0.22	45,401 "	16.81
Feed.....	152 "	0.15	17,600 "	6.52
No Grade.....	2,209 "	2.12	4,658 "	1.73
Others.....	3,062 "	2.94	3,083 "	1.14
Total, other than Durum.....	104,234 "	100.00	270,057 "	100.00
1 C. W. Amber Durum.....	995 cars or	16.66	158 cars or	0.95
2 C. W. Amber Durum.....	2,088 "	34.96	3,166 "	18.93
3 C. W. Amber Durum.....	1,142 "	19.12	7,070 "	42.27
4 C. W. Amber Durum.....	96 "	1.61	2,907 "	17.38
Others Durum.....	1,651 "	27.65	3,424 "	20.47
Total, Durum.....	5,972 "	100.00	16,725 "	100.00

Weights and Measures Inspection

The Director of the Weights and Measures Service reports that, although the financial returns for the year ending March 31, 1930, show a drop of very nearly \$10,000 in the surplus, compared with 1929, the fact is more creditable than otherwise to the service.

Figures and totals do not mirror weights and measures work in its true perspective or usefulness. Efficiency embodies economy and economy reacts on monetary totals. To those who pay inspection fees a large surplus is a challenge, so that, within the principle of self-support, improved finances, through increasing inspection work, should ease inspection charges collectable from trade and industry.

Because of the surplus of \$72,534.88 for 1928-29, instructions were issued to the service to reduce the cartage levy by about 10 per cent (the cartage levy is a charge that is made at each inspection, in addition to the statutory inspection fee, on a pro rata basis, to cover the cost of transporting and carting test weights and standards), and the records show this reduction amounted to \$7,185.45 for 1929-30.

Increasing work, however, offset this reduction and closed the year with an increase in revenue of \$8,050.64. The figures are as follows:—

	1928-29	1929-30	Increase
Revenue.....	\$ 399,308 06	\$ 407,358 70	\$ 8,050 64
Expenditure.....	326,773 18	344,566 35	17,793 17
Surplus.....	72,534 88	62,792 35	

If no unforeseen and radical changes take place in trade practices, such a might dispense with a whole class of inspectable equipment, as the chain store and package goods have greatly reduced the number of retail shop scales, the time may not be far distant when the statutory inspection fees alone will carry the Service and permit of the elimination of the cartage levy altogether, except in special cases, and so free the service from an unpopular charge.

INSPECTION STATISTICS

The following table gives a summary of the weights and measures equipment inspected during the year:—

Articles	Submitted	Verified	Rejected	Percent. of Rejection
Weights (Dom.).....	85,631	81,675	3,956	4.6
Weights (metric).....	1,214	1,195	19	1.5
Measures of capacity (Dom.).....	90,302	89,581	721	0.8
Measures of length.....	11,696	11,561	135	1.1
Milk cans.....	71,166	71,084	82	0.1
Ice cream containers.....	47,408	47,407	1	.....
Measuring devices.....	45,945	41,294	4,651	10.1
Tank wagons.....	1,273	1,265	8	0.6
Babcock glassware.....	34,354	34,008	346	1.0
Weighing machines.....	185,720	165,090	20,630	11.1
Weighing machines (metric).....	504	482	22	4.3
	575,213	544,642	30,571	.....

SEIZURES AND PROSECUTIONS

During the year thirty-six weighing machines were seized as unfit or unlawful for use, and fourteen miscellaneous articles, mostly inaccurate measures.

There were sixteen prosecutions, convictions being secured in all cases, the fines totalling \$110.

Of these, six proceedings were for the sale of short weight, a source of trouble that unfortunately seems to be on the increase and to which the Weights and Measures Service is giving closer attention, as it not only involves fraud upon the public, but embodies a most destructive element of unfair competition.

The comparative fewness of rejections, seizures and prosecutions is mainly due to the Canadian system of inspection of all equipment before it is sold or taken into use for trade, and to the holding of all importations by the Customs officials until approved or refused entry by the nearest Inspector of Weights and Measures. This keeps the country almost free from fraudulent, defective, unlawful and cheap devices.

More particular information concerning the Weights and Measures Service, with detailed statistics, can be found in the separate Weights and Measures Annual Report.

Electricity and Gas Inspection Services

The following is a comparative statement concerning the activities of the Electricity and Gas Inspection Branch for the two years ending March 31, 1930, furnished by the director:—

	1928-29	1929-30
<i>Electricity and Gas Inspection Acts—</i>		
Electricity meters tested.....	324,998	345,052
Gas meters tested.....	134,161	144,517
Total number of meters tested.....	459,159	489,569
<i>Revenue—</i>		
Electricity inspection.....	\$ 212,251 65	\$ 228,168 00
Gas inspection.....	92,447 90	100,838 10
Total revenue.....	\$ 304,699 55	\$ 329,006 10

	1928-29	1929-30
<i>Expenditure—</i>		
Electricity inspection.....	\$ 143,790 81	\$ 162,866 61
Gas inspection.....	60,036 70	61,070 11
Total expenditure.....	\$ 203,827 51	\$ 223,936 72
<i>Electricity and Fluid Exportation Act—</i>		
Revenue—		
Export tax.....	\$ 351,108 78	\$ 318,042 36
Licence fees.....	675 00	750 00
Total revenue.....	\$ 351,783 78	\$ 318,792 36
<i>Expenditure—</i>		
Travelling expenses.....	\$ 283 81	\$ 210 14
Total revenue for branch.....	\$ 656,483 33	\$ 647,798 46
Total expenditures for branch.....	204,111 30	224,146 86
Surplus.....	\$ 452,372 03	\$ 423,651 60

As regards the Electricity and Gas Inspection Services, this statement shows a general increase over the previous year. There is an increase in the total number of meters tested of 30,410; in revenue of \$24,306.55; and in expenditure of \$20,109.21. The surplus of revenue over expenditure for the year amounts to \$105,069.38, an increase of \$4,197.34 over the previous year.

The amounts required to pay the salaries of the officers at headquarters at Ottawa and the rent, fuel and furniture for the Services as a whole do not enter into the calculations in arriving at the foregoing figures.

GAS INSPECTION SERVICE

The total number of meters tested for the year was 144,517, an increase of 10,356 over the previous year, of which number 39,816 were new meters. The number of meters in use on March 31, 1930, on manufactured gas was 520,788, an increase of 16,288 over the previous year.

The number of cubic feet of manufactured gas sold during the year was 18,418,879,100, an increase of 1,496,855,600 over the previous year. There were 3,646 calorific tests made throughout the Dominion of Canada, and the average heating value was found to be 492.8 B.T.U's per cubic foot. The standard required by regulation is 450 B.T.U's per cubic foot.

The production of natural gas continues to increase very rapidly. During the past year 31,880,844,600 cubic feet were supplied, an increase of 6,389,398,600 cubic feet. The number of meters in service on March 31, 1930, measuring natural gas was 118,390, an increase of 10,796.

During the year one prosecution was instituted for infraction of the Gas Inspection Act, the offence being the illegal use of a gas meter seal. A conviction was obtained and a fine imposed.

ELECTRICITY INSPECTION SERVICE

The work connected with this Service continues to increase. During the past year 345,052 meters were tested, an increase of 20,054 over the previous year. The number of new meters tested was 109,289, and the total number of meters in service on March 31, 1930, was approximately 1,582,000.

ELECTRICAL AND GAS STANDARDS LABORATORIES

The work performed in the laboratories in Ottawa, Winnipeg and Vancouver continues to play a very important part in the activities of the Electricity and Gas Inspection Services. The periodic calibration and checking of the inspection standards supplied to the outside Inspectors is particularly important and requires more painstaking work each year as the outside companies are more exacting in their demands for greater accuracy.

During the past year 122 rotating standards, 49 wattmeters, 26 voltmeters and 24 ammeters were checked for our own inspection service and for outside companies and other departments of the Government 14 rotating standards, 24 wattmeters, 15 voltmeters and 8 ammeters were checked.

In connection with the approval of meters for use in Canada, 42 electric meters and one gas meter were examined and tested, of which 15 electric meters and one gas meter were approved.

EXPORTATION OF ELECTRICAL ENERGY

During the past year the number of kilowatt hours produced for export was 1,497,106,389, a decrease of 107,105,887. This decrease is equivalent to 16,389 horse-power years. The revenue collected by virtue of the export duty and licence fees was \$318,792.36, and the expenditure was \$210.14.

Mail Subsidies and Steamship Subventions

The expenditure on mail subsidies and steamship Subventions during 1929-30, according to the secretary of the department, totalled \$1,083,436.48 as against \$1,026,375.14 in the previous year—an increase of \$57,061.34.

This amount is divided as follows:—

OCEAN SERVICES

Services on the Atlantic Ocean.....	\$ 224,583 26
Services on the Pacific Ocean.....	194,600 00
	<hr/>
	\$ 419,183 26

LOCAL SERVICES

<i>(a) Interprovincial Services—</i>	
(1) Between Quebec and New Brunswick.....	\$ 3,000 00
(2) Between Quebec, Prince Edward Island and Nova Scotia.....	5 0,000 00
(3) Between Nova Scotia and Prince Edward Island.....	35,000 00
(4) Between Nova Scotia and New Brunswick.....	49,000 00
	<hr/>
	\$ 137,000 00
<i>(b) Provincial Services—</i>	
(1) British Columbia.....	\$ 94,692 86
(2) New Brunswick.....	30,500 00
(3) Nova Scotia.....	184,078 97
(4) Ontario.....	11,000 00
(5) Prince Edward Island.....	5,000 00
(6) Quebec.....	197,687 50
	<hr/>
	\$ 522,959 33

In addition to these amounts, \$4,293.89 was expended in the inspection of subsidized services in Quebec and the Maritime provinces.

BRITISH COLUMBIA AND AUSTRALIA SERVICE

Towards the close of 1928 a number of requests were received by the department from British Columbia firms for the establishment of a subsidized freight steamship or motorship service, chiefly for the purpose of carrying lumber from British Columbia to Australia, and to develop Canadian business in that market.

These requests came from a number of British Columbia firms, and were strongly supported by British Columbia associations representing the timber trade, including the Associated Timber Exporters of Vancouver, the Timber Industries Council of British Columbia, and the Timber Holders' Association of British Columbia.

On May 14, 1929, a call for tenders was issued, for a service to commence in August 1929.

Six tenders were received, and the tender of the Australian British Columbia Shipping Co., Limited, of Vancouver, was accepted for a period of three years, commencing in August, 1929, at a subsidy of \$7,700 per trip, or \$92,400 per annum.

Up to the present date the results of this service have been exceedingly good. A sailing has been made each month, and each ship has been fully loaded, carrying from 4 to 4½ million feet of lumber, as well as small quantities of box shooks and other goods.

There is no doubt that if it had not been for this subsidized service the greater part of these cargoes would not have been exported to Australia at all.

OTHER OCEAN SERVICES

The freight services from Eastern Canada to Brazil, Uruguay and the Argentine; from Canada to South Africa; and from British Columbia to the British West Indies, continue to show excellent results.

COASTAL SERVICES

Grand Manan and the Mainland.—The new motorship *Grand Manan II*, was placed in service on February 22, 1930, as the result of a call for tenders in 1928, and the acceptance of the tender of the Grand Manan Steamboat Company, who built the *Grand Manan II* especially for the important coastal service between Grand Manan and the Mainland.

The new motorship is very comfortably fitted for passengers, and will carry a large quantity of freight, as well as a number of automobiles. Her speed is considerably in excess of the old *Grand Manan*, which was on this route for many years, and she is giving every satisfaction.

Sydney and Bay St. Lawrence.—The steamer *Aspy*, operated by the North Shore Steamship Company, on the Sydney and Bay St. Lawrence service, has increased her service to Bay St. Lawrence, as a result of new arrangements with the Department, and now makes two trips a week to that point throughout the season of navigation, instead of during the summer months only, as was the case in former years. This additional service was granted at an increased cost to the Government of \$7,000 per annum. It has been put into force as the result of strong representations made by the fishermen living in the small fishing villages in the northern part of Victoria county.

It was pointed out that the best fishing season along this coast is in the fall, and that both in the fall and in the spring two trips a week are urgently required for the carriage of fish and fishing supplies, and for the benefit of the residents in the coastal ports, who are entirely dependent upon the steamer for their communications.

These requests were supported by the Department of Fisheries, and the increased service went into force on December 9, 1929, and continued until January 1, 1930, when navigation closed.

A full service of two round trips a week will now be performed to Bay St. Lawrence throughout each season of navigation for a period of five years.

Mulgrave, Arichat and Petit de Grat.—On the *Mulgrave, Arichat and Petit de Grat* Service, the new motorship *Ile Madame* commenced to run on August 19, 1929. She is a vessel of 163 gross tons, specially constructed for the route, and capable of carrying 50 passengers and 125 tons of freight, and replaces the *Prince Albert*, which was crushed by ice on March 6, 1929.

The other coastal services subsidized by the department, which are 44 in number, continued their usual operations during the year, serving the coastal towns, villages and settlements of British Columbia, Quebec and the Maritime Provinces, and providing means for passenger, freight and mail communications between the small coastal ports and their sources of supply and markets in the larger centres of population.

Precious Metals Marking Act

Mr. W. J. Ryan, Inspector under the Precious Metals Marking Act, reports that throughout Canada the trade—particularly the jewelry trade—is becoming more familiar with the Precious Metals Marking Act and all its requirements, as is shown by the increased respect that is shown for it each succeeding year.

The few exceptions are those who are newcomers to Canada, whose business is done chiefly by mail order. This line of business is rapidly decreasing owing to the growth of departmental and chain stores throughout the country.

The large departmental stores handling so extensively the lines of merchandise that come within the Precious Metals Marking Act have expert merchandise managers, who have all been provided with copies of the Act and instructed by the general managers to adhere strictly to its requirements, and such instructions have been complied with satisfactorily.

There were but four prosecutions during the year for disregarding the Act. In each case the articles complained of were marked in such a manner as to mislead and deceive, and were all made outside of Canada. The four dealers were convicted and fined.

Since the Canadian manufacturers have shown their appreciation of the Act by respecting its every requirement, the Inspector of the Precious Metals Marking Act again recommends that a national mark be adopted by manufacturers, such mark to be applied to their product.

With such a mark the buying public would be protected by the Act, and could depend on the quality, particularly when they knew that only goods made in Canada could legally bear the National Mark.

Further, the adoption of a national mark for Canadian-made goods, the Inspector believes, would increase the number of employed in the production of same.

Bounties

BOUNTY PAID ON COPPER BARS

July 1, 1927 to June 30, 1928; 12,514,446 lbs. at $\frac{1}{2}$ c.	\$ 62,572 24
July 1, 1928 to June 30, 1929; 6,837,124 lbs. at $\frac{1}{2}$ c.	34,185 63
July 1, 1929 to June 30, 1930; 7,707,370 lbs. at $\frac{1}{2}$ c.	38,536 86

NOTE.—A claim for bounty on 1,849,298 pounds of copper bars amounting to \$9,246.49, which was received in June, 1930, is being held for adjustment and not included in the above statement.

BOUNTY PAID ON HEMP

Calendar year 1927, 203,087 lbs. at $1\frac{3}{4}$ c.	\$ 2,792 43
Calendar year 1928, 826,821 lbs. at $1\frac{3}{4}$ c.	10,335 25
Calendar year 1929, 666,113 lbs. at $1\frac{3}{4}$ c.	7,493 77

Revenue and Expenditure

Appended will be found the usual statements of revenue and expenditure of the department for the last fiscal year.

All of which is respectfully submitted.

F. C. T. O'HARA,
Deputy Minister.

REVENUE—DEPARTMENT OF TRADE AND COMMERCE

SUMMARY of the Revenue of the Department of Trade and Commerce for the Services indicated during a period of seventeen years, i.e., April 1, 1913 to March 31, 1930.

Fiscal Year	Canada Grain Act	Canadian Government Elevators	Weights and Measures (a)	Gas and Electricity	Electricity Exportation Act (b)	Culler's Fees (c)	Board of Grain Supervisors	War Trade Board	Canadian Government Picture Bureau	Patent Fees (d)	Miscel- laneous Revenue	Totals
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913-14.....	402,639 87	107,494 14	—	—	—	1,799 40	—	—	—	—	14 78	511,993 19
1914-15.....	276,711 45	240,323 18	—	—	—	3,114 54	—	—	—	—	896 76	521,045 93
1915-16.....	469,049 09	444,366 77	—	—	—	1,737 07	—	—	—	—	22,225 09	937,578 02
1916-17.....	569,772 63	830,038 75	—	—	—	1,554 78	—	—	—	—	2,033 15	1,463,399 33
1917-18.....	563,266 92	956,608 08	—	—	—	1,342 18	—	—	—	—	26,608 51	1,527,826 57
1918-19.....	340,545 75	741,323 88	—	—	—	1,229 49	—	—	—	—	64,458 40	1,423,466 37
1919-20.....	394,309 77	698,285 82	149,473 43	175,125 27	—	1,272 82	—	—	—	—	152,556 17	2,537,999 59
1920-21.....	810,952 57	672,325 00	264,218 95	211,828 60	—	2,070 15	350,000 00	262,469 34	11,917 06	—	183,413 17	2,066,725 50
1921-22.....	1,133,121 87	804,201 16	269,805 65	221,550 80	—	—	—	—	2,805 27	—	12,690 95	2,444,175 70
1922-23.....	1,503,616 09	860,421 39	278,259 04	204,420 31	—	—	—	—	16,141 10	—	1,407 67	2,864,355 60
1923-24.....	1,661,223 84	658,747 21	290,173 30	220,227 05	—	—	—	—	17,090 98	—	3,069 90	2,850,527 28
1924-25.....	1,446,199 79	876,566 00	293,763 87	216,413 90	—	—	—	—	27,876 79	—	17,288 33	2,878,109 68
1925-26.....	1,642,054 30	1,043,481 89	315,703 64	247,221 40	288,992 41	—	—	—	22,163 50	—	2,613 96	3,562,231 11
1926-27.....	1,582,807 21	1,000,176 94	333,034 24	257,724 35	338,072 39	—	—	—	15,129 08	—	15,882 85	3,563,830 06
1927-28.....	1,718,803 04	959,074 48	361,690 13	275,277 05	374,351 21	—	—	—	17,912 26	—	5,621 92	4,039,961 53
1928-29.....	2,179,435 23	807,435 27	399,308 06	304,699 55	351,783 78	—	—	—	25,883 29	—	43,991 83	4,112,537 01
1929-30.....	1,140,436 97	906,770 12	407,358 70	329,006 10	318,792 36	—	—	—	23,416 18	—	31,599 02	3,157,379 45
	17,834,997 01	12,648,050 96	3,362,792 02	2,663,494 38	1,691,992 15	14,120 43	350,000 00	262,469 34	180,335 51	957,437 26	497,458 46	40,463,147 52

(a) Prior to September, 1918, the Weights and Measures and Gas and Electricity Services were under the Department of Inland Revenue.

(b) The Electricity and Exportation Act was passed on April 27, 1907, but no export duty was imposed until April 1, 1925.

(c) Cullers Act abolished in 1921.

(d) Patent Office under Trade and Commerce during 1918-19—1919-20; and eight months during 1927-28.

EXPENDITURE—DEPARTMENT OF TRADE AND COMMERCE

FOR FISCAL YEARS ENDED MARCH 31, 1920, TO MARCH 31, 1930

	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Civil Government.....	406,563 34	289,466 97	337,354 97	412,783 00	465,460 86	444,766 24	465,464 14	481,831 75	633,965 65	543,374 42	585,615 40
Canada Grain Act.....	617,781 33	654,615 58	868,970 07	953,342 39	1,132,664 10	1,098,288 66	1,140,113 34	1,580,258 40	1,648,562 37	1,856,202 06	1,866,463 60
Commercial Intelligence.....	191,896 14	237,088 07	229,246 87	304,859 41	315,686 95	315,032 45	320,832 34	357,415 25	413,294 31	493,183 92	663,378 10
Elevators, Operation and Management.....	307,815 65	404,949 77	366,029 93	432,812 35	417,016 96	333,501 17	409,029 65	470,271 00	443,046 92	430,384 38	404,763 85
Elevators, Construction and Maintenance.....	895 00	9,749 51	2,531 18	74,356 95	110,744 96	1,538,052 82	1,775,144 02	379,435 46	370,860 73	16,056 35	—
Bureau of Statistics.....	82,517 55	237,483 89	134,697 34	103,857 87	99,081 04	76,150 35	82,413 26	105,293 82	101,892 16	114,609 71	127,760 06
Census.....	94,507 23	109,577 48	1,664,088 04	259,148 28	158,015 70	40,800 09	134,996 60	455,559 24	61,764 34	15,085 04	12,235 54
Research Council.....	—	—	119,563 37	105,210 96	119,810 90	116,213 66	—	150,000 00	169,998 41	299,745 68	398,256 80
Mail Subsidies and Steamship Subventions.....	1,632,905 80	1,094,508 89	1,105,895 91	1,070,684 08	1,105,086 76	1,055,643 23	1,078,038 10	1,008,998 92	844,590 76	1,026,375 14	1,083,436 48
West India Cable.....	33,723 91	34,006 07	38,917 79	38,933 32	38,933 32	19,466 66	—	301,437 72	306,194 55	326,773 18	344,566 35
Weights and Measures Inspection.....	226,851 82	267,809 53	286,165 55	279,855 25	293,715 84	285,041 46	293,193 65	174,461 45	192,298 84	203,827 51	223,836 72
Electricity and Gas Inspection.....	119,474 93	138,000 00	145,145 88	156,702 26	169,672 31	163,072 79	167,028 24	—	—	—	—
Demobilization.....	1,057,850 25	711,950 63	1,710 46	—	—	—	—	—	—	—	—
Bounties.....	332,558 52	148,202 35	100,140 14	95,749 93	79,809 54	72,043 73	31,783 82	164,791 01	82,806 86	79,290 10	40,020 84
British and Foreign News Service.....	—	—	—	—	21,333 34	32,000 00	32,000 00	32,000 00	32,000 00	32,000 00	32,000 00
Exhibitions.....	—	—	—	—	—	—	—	—	(d) 38,012 41	295,038 32	385,646 48
Publicity and Advertising.....	—	—	—	—	—	—	—	—	80,941 86	149,890 80	219,596 45
Miscellaneous.....	632,643 82	55,316 41	559,894 12	354,805 78	730,359 18	283,016 00	191,975 35	165,637 71	286,760 96	243,138 32	218,735 71
	5,757,994 50	3,754,493 87	6,010,351 62	4,643,101 83	5,257,391 86	5,873,089 31	6,131,022 71	5,827,391 73	5,706,991 13	6,126,974 93	6,606,421 18
(c)											

NOTES—

(a) This amount includes salaries and contingencies of the Patents, Copyrights and Trade Marks Branch, for eight months, April 1-Nov. 30, 1927, totalling \$119,626.74.
 (b) This item was reduced by refunds from the sale of pig iron, amounting to \$801,793.91.
 (c) The difference between this figure and that shown by the Auditor General's Report is \$4,805.39—"Civil Government Salaries," detailed under Health Department.
 (d) This amount covers the expenditures from December 1, 1927 to March 31, 1928.

MISCELLANEOUS for 1923-24 included the following:—
 Provisional Bonus Allowance.....
 Printing Parliamentary and Departmental Publications..... \$ 139,521 81
 Royal Commission to Inquire into Grain Trade..... 114,606 39
 Canadian Exhibition Train..... 120,212 01
 Japanese Relief..... 106,062 74
 Other Miscellaneous..... 182,369 65
 67,586 58

\$ 730,359 18

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DEPARTMENT OF TRADE AND COMMERCE
OTTAWA, CANADA

HON. H. H. STEVENS, Minister

F. C. T. O'HARA, Deputy Minister

ANNUAL REPORT
OF THE
WEIGHTS AND MEASURES INSPECTION SERVICE

FOR THE FISCAL YEAR ENDING MARCH 31

1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

THE UNIVERSITY OF CHICAGO

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REPORT OF THE INSPECTION OF WEIGHTS AND MEASURES

OTTAWA, July 20, 1930.

To the Honourable
The Minister of Trade and Commerce.

SIR,—I have the honour to submit the annual report on the Weights and Measures Inspection Service, together with statistical statements, for the fiscal year ended March 31, 1930.

F. C. T. O'HARA,
Deputy Minister

Mr. E. O. Way, Director of Weights and Measures, reports as follows:—

Compared with 1928-29, the revenue and expenditure for the fiscal year ending March 31st 1930, were as follows; details by districts and provinces being given in Appendix "A".

	1928-29	1929-30	Increase
	\$ cts.	\$ cts.	\$ cts.
Revenue.....	399,308 06	407,358 70	8,050 64
Expenditure.....	326,773 18	344,566 35	17,793 17
Surplus.....	72,534 88	62,792 35	

A better idea of the year's work is given by the following analysis of the revenue items.

	1928-29	1929-30
	\$ cts.	\$ cts.
Inspection fees.....	325,554 90	341,151 30
Portage.....	61,677 20	54,491 75
Special expenses.....	5,947 75	5,976 80
Adjusting fees.....	1,685 70	1,428 10
Post Office fees.....	2,500 00	2,500 00
Laboratory fees (Ottawa).....	1,881 20	1,700 40
Penalties.....	37 00	110 00
Casual revenue.....	24 31	0 35
	399,308 06	407,358 70

The above shows that inspection work proper increased by \$15,596.40, and that in spite of increased work and travelling, a reduction was made in the portage charge of \$7,185.45, or 11.6%, which represents that much saving in the cost of inspection to the trading community.

This may not appeal as a very great saving, but it does illustrate the line of progress studiously aimed at by the Service.

The current surplus of \$62,792.35 suggests that there is possibly room for yet further reductions in inspection charges, but it is worth pointing out that, following reorganization, it took the Service five years to eliminate an annual deficit that had repeated since Confederation, and another five years to attain the relatively small surplus of \$72,534.88 in 1928-29, which dropped last year to \$62,792.35. Weights and Measures conditions are neither fixed nor stable. New methods of handling commodities may increase or decrease inspectable equipment, and in view of the multiplicity of inspections, even small reductions mount up into large sums.

The cartage charge, it might be explained, is a flexible levy—authorized by Order in Council—to cover the cost of transporting and conveying the heavy equipment of Weights and Measures standards and test weights, through town and country, to each place of inspection, the charge made being proportional to the amount of work done and time occupied at each inspection and related, of course, to the cost of conveyance to the service.

During the year 1929-30, the miles travelled on field inspection alone, totalled 351,890.

STATISTICAL STATEMENT OF INSPECTIONS

The following table gives a statistical statement of the weights, measures, weighing and measuring machines and equipment, inspected during the year, of which a detailed analysis will be found in appendices B and C.

Articles	Submitted	Verified	Rejected	Percent. of Rejection
Weights.....(Dom.)	85,631	81,675	3,956	4.6
Weights.....(Metric)	1,214	1,195	19	1.5
Measures of Capacity.....(Dom.)	90,302	89,581	721	0.8
Measures of Length.....	11,696	11,561	135	1.1
Milk Cans.....	71,166	71,084	82	0.1
Ice Cream Containers.....	47,408	47,407	1	.....
Measuring Devices.....	45,945	41,294	4,651	10.1
Tank Wagons.....	1,273	1,265	8	0.6
Babcock Glassware.....	34,354	34,008	346	1.0
Weighing Machines.....	185,720	165,090	20,630	11.1
Weighing Machines.....(Metric)	504	482	22	4.3
	575,213	544,642	30,571	

The above figures do not include the thousands of milk bottles or the glass bottles now used in the sale of lubricating oil at filling stations. Both classes of measures, however, are carefully supervised and checked by selective inspection throughout the country, to see that they conform to Canadian standards.

Measuring devices, mostly of the gasoline type, again show a considerable increase,—45,945 as against 39,209 last year. Actually the number is at least one-third greater, since so many pedestal machines at filling stations represent two complete ten gallon dispensers,—commonly known as Twin Tens, a “two in one” machine.

BABCOCK GLASSWARE

Babcock glassware, i.e. calibrated glassware used for making the butter fat test on milk and cream, is verified, and stamped by means of a Sand Blas machine, in the Weights and Measures Standards Branch at Ottawa. This glassware, unlike milk and oil bottles, is small and light, and of the nature of laboratory equipment.

The number of bottles and pipettes received for test totalled 34,354 as against 37,958 for 1928-29; the fees amounting to \$1,700.40 as against \$1,881.20 the previous year.

REJECTIONS

As complementary to the above table, the following figures submitted by the Belleville District, showing the number of machines, etc., adjusted by inspectors, offer one explanation for the apparent paucity of rejected or faulty equipment. The same service is of course rendered in every district, although similar statistical records are not kept; the total effect upon complete rejections being obviously considerable.

	Inspected	Adjusted	Rejected
Weights.....			
Equal Arm Scales.....	2,315	80	80
Steelyards.....	412	16	20
Platform Scales.....	82	9	22
Dial Scales.....	2,860	603	778
Railway Track Scales.....	79	3	18
Spring Computing Scales.....	12	10	11
Non-spring Computing Scales.....	378	15	63
Asolene and Oil Pumps.....	871	37	82
Asolene Visibles.....	485	28	58
Tank Wagons.....	1,417	28	227
Oil Bottles.....	14	5	6
	5,433	.....	*367

*(All destroyed).

In addition, 2,357 proportional weights belonging to platform and wagon scales were adjusted. Such weights, when incorrect, of necessity make the scales to which they belong incorrect.

SEIZURES AND PROSECUTIONS

The Canadian system of original inspection on all new production, whether Canadian made or imported, together with the holding by the Customs of all importations of Weights and Measures equipment for the approval of an Inspector before release to consignee, obviously affects seizures and prosecutions by keeping out faulty and illegal devices.

During the year there were only 50 seizures of faulty or fraudulent equipment.

In the latter class there were eight scales, seized for being set out of balance against the customer, and therefore "false and unjust". Prosecutions were instituted and convictions secured in each case.

Altogether, there were sixteen (16) prosecutions and 16 convictions, with fees amounting to \$110.00.

The problem of the unjust scale and its corollary—short weight—is becoming increasingly serious and must be dealt with accordingly. This phase of Weights and Measures work is more fully considered under Short Weight.

EXAMINATION—NEW MACHINES

During the year, twenty-four new machines or modifications of existing machines, were submitted to the Director's office for examination and approval. Of these, seventeen were approved and five rejected, whilst two stand as unfinished business.

In the field of measuring devices, the gasolene meter still holds the centre of interest. The main source of trouble seems to be to construct a meter that will correctly measure gasolene at varying rates of speed. The whole idea underlying the metering system is rapid service, but the Weights and Measures Inspection Service cannot consider a measuring device that is accurate at one speed only. The maximum speed seems to be five gallons in 25 to 30 seconds, but all cars cannot take gas at that speed. In the interest of accuracy and to ensure a reasonable refinement in construction, Weights and Measures has demanded a range of accuracy from full to half speed, and it is worth mentioning that that requirement has been more or less universally endorsed.

Many of the first installations have failed badly under the half speed test, with the result that manufacturers have turned to new designs of meters with increasingly satisfactory results.

WESTERN ELEVATOR SCALE INSPECTION

The introduction of the motor truck for hauling grain to country elevators has led to the replacing of the old 12,000 pound wagon scale with 20,000 pound truck scales, and raised the problem of making heavier tests on the larger scales. Here we have the fundamental problem underlying all Weights and Measures work, the transport and handling of adequate test loads, in acute form, because of the mileage to be covered and the primitive condition of most of the Prairie roads, too frequently impassable under adverse climatic conditions.

The two essential factors involved are, adequate test weights to verify the leverage or multiplication of the scale, and adequate load to test for strength and stability.

To this end, motor trucks have been introduced, carrying 2,000 pounds of test weights, as against 1,000 pounds heretofore, and it is gratifying to note that some of the elevator companies have already expressed their appreciation of these heavier and more efficient tests, notwithstanding it means more rejections and more repair work, a costly business over the wide range of the Prairies, for like the Inspector, the repair mechanic must also have his load of weights.

Consultations have been held with elevator interests with a view to finding some way to reduce this duplication, but, since an inspector cannot possibly wait while repairs are being made, it is difficult to find a solution, other than the reduction of rejections to a minimum by effective scale supervision, both as regards installation and maintenance, on the part of the elevator companies.

Incidentally, considerable attention is being given to devising some means of reducing the time and labour in shifting so many 50 pounds weights at each inspection. To this end experiments are being made with a small steel dolly-truck of 500 pounds on which 1,500 pounds of weights can be piled, making a movable test load of 2,000 pounds, and to date the results are reported as most encouraging. The dolly-trucks, however, are somewhat expensive and also require special tackle to load and unload on and off the truck. It remains to be seen if the economy they effect in conducting elevator, stock, and corporation scale inspections will justify equipping each of the Western inspectors with this mechanical facility.

COAL

Complaints continue to come to hand concerning serious discrepancies in car lot shipments of western coal. This is another large issue very difficult of solution, owing to the physical conditions involved.

One contributing cause of error, inaccurate tare-weights of box cars, has owing to successive Weights and Measures check ups at Edmonton and Calgary now been practically eliminated.

Last February and March 141 cars were tare weighed in Edmonton and of these

73 weighed more than the stencilled weight, averaging 236 pounds per car.
 35 weighed less than the stencilled weight, averaging 250 pounds per car.
 33 were correct.

In March, 31 cars were tare weighed in Calgary and of these

9 weighed more than the stencilled weight, averaging 171 pounds per car.
 11 weighed less than the stencilled weight, averaging 145 pounds per car.
 11 were found correct.

If a box car weighs more than its stencilled weight, short weight to the extent of the discrepancy results in the net weight of the contents.

Since serious discrepancies are still the subject of complaint, and since they exceed any possible scale error, the only inference to be drawn is that explanation of the discrepancies must be looked for in the methods of handling the coal. Coal is a crude product and it is crudely handled. The coal in question is friable, and slack is not treated with any great respect. There are present many causes of error, e.g. error in tare weights, aggravated by rain, snow, ice and uncleared cars, leakage and theft in transit, spillage in unloading, neglect to remove slack, error in unloading a car in team or truck lots, hurried weighing at point of origin, evaporation of moisture, etc.

The problem then is not one of scale accuracy and only partially of accurate weighing, but more in the nature of divided responsibility as between shipper and consignee, with reference to the methods used in handling a difficult commodity, an issue over which Weights and Measures can exercise no direct jurisdiction.

SHORT WEIGHT

In the retail world, short weight exists, in as far as it does exist, almost wholly as a practice, quite apart from the accuracy or inaccuracy of the inspected equipment used.

The insidious thing about short weight is that the quarter and the half ounce and even the ounce short, seem relatively too trivial to make a fuss about. In fact one can hardly escape the impression that the offence seems to be endowed with some sort of justification, a dangerous and mischievous idea that must be dispelled by resort to prosecution if plain warning fails, as it too often fails.

Whilst weight, measure, and money are practically interchangeable values, it is unfortunate that the average human mind misses this identity; that one ounce short at 32 cents per pound means 2 cents. The situation is further aggravated by the fact that nobody hesitates to challenge short change, even to a cent, yet the individual who challenges a shopkeeper or a clerk with short weight is somewhat of a rarity.

The problem is further complicated by the factor of evaporation or shrinkage, but as a general rule, short weight, as it exists, generally exceeds that attributable to this factor. Nevertheless, the whole intent and purpose of the Weights and Measures Act is to see that correct weight and correct measure are given and it is the duty of the trader to adapt and adjust his methods to conform with the law; not to adopt such methods as suit his own economic convenience and advantage, leaving weight and measure to take care of themselves.

During the year, six prosecutions were instituted for short weight under Section 63 of the Act, which provides that "Notwithstanding any of the provisions of the Criminal Code, any person who sells, delivers, or causes to be sold or delivered, anything by weight, measure or number, short of the quantity ordered or purchased, shall be guilty of an offence and liable to a fine not exceeding 25 dollars for the first offence and to a fine not exceeding 100 dollars for every subsequent offence".

In addition, eight weighing machines were seized because they had been set out of balance half an ounce or more against the customer, with the intent to commit short weight—such scales being false and unjust within the meaning of the Act.

Proceedings were entered and convictions secured against all the above cases.

Usually the minimum fine of \$5 and costs is inflicted. Occasionally the fine is \$25, but as evidence that the matter is being more seriously regarded it might be mentioned that just after the close of the year, a short weight conviction in Toronto, for a second offence, drew a penalty of \$50 and costs.

NET WEIGHT

Another form of short weight is to be found in package goods, and possibly the most interesting and at the same time the most important prosecution yet taken under the Weights and Measures Act was a case in Western Ontario for the sale of $15\frac{1}{2}$ ounces of tea in a wrapper that was found to weight $\frac{1}{2}$ ounce, making a one pound package.

The action taken in Ontario was strongly contested but after lengthy deliberation, the Magistrate convicted, thus establishing the principle of net weight.

The decision is momentous, for had it been otherwise, it would have opened the way to the use of heavier wrappers and containers than $\frac{1}{2}$ ounce and virtually destroyed the whole effectiveness of the intent and purpose of the Weights and Measures Act.

Lacking the competence to discuss the legal niceties of the issue, it may yet be said that the judgment holds no menace or anything detrimental to honest trade. On the contrary, the practical provisions of Weights and Measures regulations afford the trader ample margin for the use of reasonable bags and wrappers, in that all weights and measures equipment being mechanical, is allowed by the law what is known as a "toleration of error". That is to say, no device is expected to be so superfine that it can have no error.

Technically speaking, the sensitiveness of most scales will not respond to the weight of an ordinary paper bag of light strong paper. That is, a paper bag placed on the platter will, alone, not move the indicator, or if it does, but by an infinitesimal amount. That being so, the issue of net or gross weight does not arise, and reasonable bags and wrappers may be held not to conflict with the principle of accuracy underlying the Act, but if heavy bags and wrappers are used, such that they displace any appreciable quantity of the commodity being weighed, then the trader in the words of Section 63 of Chapter 212, R.S. 1927, is selling "less than the quantity ordered or purchased."

Concluding, it is only fair to offer some word of commendation on the industry, care and judgment exercised by the field inspectors in the conduct of duties of no mean difficulty, involving as they do individual contact with competitive interests and the exercise of firmness with scrupulous impartiality.

WEIGHTS AND MEASURES

9

APPENDIX A

STATEMENT of Weights and Measures Expenditure and Revenue for fiscal year ended March 31, 1930

District	District Inspector	Salaries	Special Assist- ance	Rent	Travel	Sundries	Total	Revenue
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—								
Belleville.....	F. D. Diamond.....	9,450 00			4,137 66	509 97	14,097 63	14,829 20
Hamilton.....	A. E. Wheatley.....	12,820 97			7,749 11	297 28	20,867 36	27,489 55
London.....	A. A. Luton.....	14,422 85	60 00		6,152 17	386 42	21,021 44	20,199 35
Ottawa.....	E. H. Hinchey.....	18,795 00			9,489 53	341 96	28,626 46	24,429 60
Toronto.....	W. A. Fallowdown.....	17,782 42			6,297 29	234 96	24,314 67	68,866 10
Total for Ontario..		73,271 24	60 00		33,825 76	1,770 59	108,927 59	155,813 80
QUEBEC—								
Montreal.....	A. A. Bernard.....	23,208 04			11,576 30	403 59	35,187 93	43,044 05
Quebec.....	J. A. W. LeBel.....	12,391 77			7,973 93	497 41	20,863 11	20,777 55
Sherbrooke.....	O. C. Delorme.....	7,710 00			2,509 90	410 81	10,630 71	12,749 75
Three Rivers.....	J. A. Desilets.....	7,635 00			3,052 47	156 29	10,843 76	8,498 95
Total for Quebec..		50,944 81			25,112 60	1,468 10	77,525 51	85,070 30
NEW BRUNSWICK—								
St. John.....	W. F. Balcom.....	6,110 00			2,339 09	151 87	8,600 96	8,411 90
NOVA SCOTIA—								
Halifax.....	W. M. Dustan.....	7,605 00			4,852 26	701 55	13,158 81	12,612 80
P. E. ISLAND—								
Charlottetown.....	J. E. Trainor (Actg.)	1,860 00			658 44	44 49	2,562 93	2,391 70
MANITOBA—								
Winnipeg.....	J. B. Attridge.....	16,260 00			9,058 49	339 58	25,658 07	31,141 15
SASKATCHEWAN—								
Regina.....	E. B. Lorimer.....	14,312 90			7,959 44	365 68	22,638 02	26,508 05
Saskatoon.....	R. Wallace (Actg.)..	9,180 00	120 00		7,559 31	284 36	17,143 67	26,457 95
Total for Saskat- chewan.....		23,492 90	120 00		15,518 75	650 04	39,781 69	52,966 00
ALBERTA—								
Calgary.....	A. E. H. Cable.....	7,950 00			5,958 50	315 34	14,223 84	18,154 75
Edmonton.....	John McLeod.....	10,498 12			6,159 11	530 40	17,187 63	22,368 40
Total for Alberta..		18,448 12			12,117 61	845 74	31,411 47	40,523 15
BRITISH COLUMBIA—								
Vancouver.....	A. H. Dutton.....	7,920 00		180 00	4,852 54	388 48	13,341 02	14,129 65
YUKON—								
Dawson.....	R. A. Field.....	360 00				242 70	602 70	103 75
Director, Ottawa	E. O. Way.....				23 50	138 60	162 10	
Superintendent								
Eastern Division	D. J. McLean.....	3,240 00			425 71		3,665 71	
Superintendent								
Western Division	R. Wallace.....	3,240 00			537 70		3,777 70	
Elevator Scale								
Ins. (retired).....	J. G. White.....	333 28			171 70		504 98	
Elevator Scale								
Inspector.....	A. A. Bowen.....	660 00			246 05		906 05	
Chief Inspector								
Factories.....	C. F. Sheppard.....				16 70		16 70	
Measures, Babcock								
Glassware.....		3,060 00					3,060 00	
Total for Districts		216,805 35	180 00	180 00	109,756 90	6,741 74	333,663 99	403,164 20
General Contingencies.....						1,421 03		
Equipment.....						2,568 49		
Printing and Stationery, General Account.....						6,912 84	10,902 36	
Weights and Measures Laboratory fees.....								1,700 40
Post Office Inspection fees.....								2,500 00
Usual Revenue.....								0 35
Total expenditure chargeable to Weights and Measures appropriation and total revenue.....							344,566 35	407,364 95
Less refunds chargeable to Weights and Measures revenue.....								6 25
							344,566 35	407,358 70

APPENDIX B

APPENDIX D

RETURN showing the Number of Weights and Weighing Machines submitted in each Inspection District, during the Fiscal Year ended March 31, 1930

Inspection District	Weighing Machines										Weights							
	Platform Scales				Spring Scales			Computing Scales			Automatic Scales	Combined Avoidupois and Metric	Avoidupois	Troy	Metric	Tolerated	Tobacco	
	Steel Yard		Track		Trade	Ice and Dairy		Automatic Slot	Spring	All others								Grain Elevator	All others
	Ordinary	Pitless	Dial	Track		Ice and Dairy	Automatic Slot			Spring	All others	Grain Elevator	All others					
Belleville.....	527	98	3,246	1	87	15	9	21	51	535	1,154	3	17	6	167	2,995	559	58
Hamilton.....	946	4,335	5,357	2	366	57	17	12	135	952	2,326	20	12	22	22	7,259	28	7
London.....	448	93	3,438	25	568	33	6	200	203	859	4,994	11	4	75	23	2,967	14	14
Ottawa.....	1,307	60	7,454	106	38	39	12	103	2,221	1,918	3,043	12	12	11	20	7,199	91	.....
Toronto.....	1,430	156	3,974	472	35	142	13	563	3,043	3,332	13,714	34	47	44	27	6,066	18	.....
ONTARIO.....	4,658	4,742	23,468	28	1,659	178	213	258	1,056	7,610	13,714	34	47	167	228	26,486	699	58
Montreal.....	3,456	792	10,811	49	413	51	133	74	511	3,004	5,453	24	69	114	77	15,346	15	237
Quebec.....	1,212	492	5,487	40	11	21	2	74	887	1,651	1,651	24	21	3	3	7,317	4	35
Sherbrooke.....	4,434	1,264	7,161	22	39	15	2	172	37	1,125	2	2	13	2	47	5,434	46	.....
Three Rivers.....	557	155	2,823	2	306	26	8	29	452	484	1,484	26	90	127	5	2,700	301	555
QUEBEC.....	5,659	2,703	26,282	73	798	103	104	74	786	4,380	8,713	26	5	33	1	2,286	15	.....
St. John, N.B.....	345	30	1,831	.....	68	22	26	17	812	897	.....	.....	5	24	.....	2,898	.....	.....
Halifax, N.S.....	629	134	2,497	.....	99	41	77	27	1,274	1,561	.....	.....	5	8	.....	253	.....	.....
Charlottetown, P.E.I.....	63	2	751	2	9	2	14	.....	1	145	231	.....	1	35	.....	5,537	64	.....
Winnipeg, Man.....	954	806	6,762	44	346	26	170	21	180	2,371	2,062	19	6	51	12	2,412	.....	.....
Regina.....	378	1,416	7,150	9	46	5	15	37	772	1,310	3	3	.....	8	.....	2,744	.....	.....
Edmonton.....	533	1,588	7,311	35	43	10	5	13	956	1,185	6	6	.....	8	.....	5,156	.....	.....
SASKATCHEWAN.....	911	3,004	14,461	44	89	15	20	.....	50	1,728	2,495	9	.....	8	.....	3,458	.....	13
Calgary.....	408	912	4,571	29	81	28	35	61	716	1,416	70	70	6	13	124	4,212	150	.....
Edmonton.....	487	916	5,925	97	97	19	13	31	716	1,731	63	63	1	9	124	7,670	150	13
ALBERTA.....	895	1,878	10,496	126	178	47	48	112	92	1,432	3,147	133	7	22	12	3,832	.....	.....
Vancouver, B.C.....	588	272	3,172	11	76	31	265	12	53	1,635	2,076	4	.....	58	.....	.....	.....	.....
Yukon, N.W.T.....	2	2	75	.....	.....	.....	5	.....	.....	6	.....	5	.....	1	.....	.....	.....	.....
Totals.....	14,704	13,573	89,795	328	3,322	465	1,002	477	2,262	21,393	34,901	225	161	483	56	84,915	381,214	52

APPENDIX B—Continued

RETURN showing the Number of Weights and Weighing Machines Verified in each Inspection District during the Fiscal Year ended March 31, 1930

Inspection District	Weighing Machines													Weights								
	Platform Scales			Spring Scales			Computing Scales			Automatic Scales		Suspension Scales	Combined Avordupois and Metric	Metric	Avordupois	Troy	Metric	Tolerated	Tobacco			
	Steelyard	Pitless		Dial	Track	Trade	Ice and Dairy	Automatic Slot	Spring		All others									Grain Elevator	All others	
		Ordinary	Pitless						Spring	All others												
Belleville.....	495	72	2,308	1	9	21	29	438	1,012	3	11	4	.....	159	2,804	.....	556	.....	.....	
Hamilton.....	793	4,289	3,501	2	10	12	67	611	1,613	19	8	17	.....	5,904	.....	3	.....	.....	.....
London.....	397	56	2,511	16	456	5	200	170	4,361	11	11	4	.....	22	7,113	.....	20	.....	58
Ottawa.....	1,250	36	6,660	134	24	26	13	1,889	1,683	.....	7	18	.....	8	7,187	.....	11	.....	.....	
Toronto.....	1,380	148	3,442	372	132	13	476	2,878	3,002	.....	2	41	.....	27	6,007	18	91	.....	.....	
ONTARIO.....	4,315	18,322	18	1,239	182	258	802	6,409	11,681	33	32	153	.....	216	23,735	18	681	.....	58	
Montreal.....	3,148	727	9,269	30	355	42	114	74	2,613	4,780	.....	65	88	77	15,252	15	251	17	237		
Quebec.....	1,183	468	5,202	.....	36	6	16	44	834	1,577	24	20	.....	3	7,233	4	33	318	.....		
Sherbrooke.....	429	1,248	7,078	21	32	13	2	107	25	1,009	2	13	.....	43	5,464	.....	46	.....	.....	
Three Rivers.....	543	1,145	2,487	2	284	18	19	417	1,446	.....	.....	.....	.....	2	2,700	.....	.....	.....	.....
QUEBEC.....	5,303	24,096	53	707	140	74	701	3,889	7,812	26	85	101	.....	5	30,619	15	301	50	555		
St. John, N.B.....	341	29	1,690	.....	58	13	25	.....	766	838	.....	5	31	1	2,285	.....	.....	.....	.....
Halifax, N.S.....	527	59	2,040	.....	88	38	67	.....	1,115	1,337	.....	1	21	.....	2,723	.....	.....	.....	.....
Charlottetown, P.E.I.....	62	2	695	1	8	2	14	.....	141	222	.....	1	7	.....	238	.....	.....	.....	.....
Winnipeg, Man.....	935	792	6,157	22	286	22	149	21	173	1,983	19	6	31	12	5,534	.....	64	.....	.....	
Regina.....	367	1,406	6,497	4	44	3	14	.....	714	1,233	3	.....	.....	.....	2,354	.....	.....	.....	.....
Saskatoon.....	522	1,573	6,683	28	37	9	4	.....	892	1,057	5	.....	.....	.....	2,744	.....	.....	.....	.....
SASKATCHEWAN.....	889	2,979	13,180	32	81	12	18	.....	1,606	2,290	8	.....	8	.....	5,093	.....	.....	.....	.....
Calgary.....	401	897	4,153	24	72	15	34	.....	690	1,368	69	6	13	.....	3,413	.....	.....	.....	.....
Edmonton.....	478	946	4,882	64	78	14	10	112	26	1,597	60	1	7	116	3,511	.....	149	.....	13	
ALBERTA.....	879	1,843	9,035	88	150	29	44	112	82	1,352	129	7	20	116	6,924	.....	149	.....	13	
Vancouver, B.C.....	580	266	2,913	11	65	27	252	12	51	1,503	4	.....	55	12	3,810	.....	.....	.....	.....
Yukon, N.W.T.....	2	2	75	.....	5	.....	.....	6	5	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Totals.....	13,833	78,203	225,268	298	896	477	1,888	19,037	31,030	219	137	428	56	482	80,966	33	1,195	50	626			

APPENDIX B—Concluded RETURN showing the Number of Weights and Weighing Machines Rejected in each Inspection District during the Fiscal Year ended March 31, 1930

Inspection District	Weighing Machines														Weights					
	Equal Arms	Platform Scales				Spring Scales			Computing Scales		Automatic Scales		Suspension Scales	Combined Avoirdupois and Metric	Metric	Avoirdupois	Troy	Metric	Tolerated	Tobacco
		Ordinary	Pitless	Dial	Track	Trade	Ice and Dairy	Automatic Slot	Spring	All others	Grain Elevator	All others								
Belleville.....	35	937	1	18	14	.....	.....	22	97	142	.....	.....	6	.....	8	131	.....	.....	.....	.....
Hamilton.....	153	1,856	.....	158	46	.....	.....	68	341	713	1	.....	4	.....	1	2,295	5	.....	.....	.....
London.....	51	927	9	112	20	.....	.....	34	266	623	.....	.....	.....	.....	3	254	.....	.....	.....	.....
Ottawa.....	57	894	.....	32	14	.....	.....	43	332	225	.....	.....	5	.....	3	59	.....	.....	.....	.....
Toronto.....	50	532	.....	100	8	.....	.....	87	165	330	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
ONTARIO.....	343	141	10	420	102	31	.....	254	1,201	2,033	1	.....	15	.....	12	2,751	5	18	.....	.....
Montreal.....	308	65	19	58	9	19	.....	40	391	673	.....	.....	4	.....	.....	94	.....	.....	.....	.....
Quebec.....	29	225	.....	4	5	.....	.....	30	53	74	.....	.....	1	.....	2	84	.....	.....	.....	.....
Sherbrooke.....	5	83	1	7	2	.....	.....	5	1	116	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Three Rivers.....	14	336	.....	22	8	.....	.....	10	35	38	.....	.....	.....	.....	2	178	.....	.....	.....	.....
QUEBEC.....	356	115	20	91	24	24	.....	85	491	901	.....	.....	5	.....	2	1	.....	.....	.....	.....
St. John, N.B.....	4	141	.....	10	9	1	.....	.....	46	59	.....	.....	.....	.....	.....	175	.....	.....	.....	.....
Halifax, N.S.....	102	75	.....	11	3	10	.....	8	159	224	.....	.....	4	.....	.....	15	.....	.....	.....	.....
Charlottetown, P.E.I.....	1	56	1	1	.....	.....	.....	.....	4	9	.....	.....	.....	.....	.....	3	.....	.....	.....	.....
Winnipeg, Man.....	19	605	22	60	4	21	.....	7	121	79	.....	.....	.....	.....	.....	58	.....	.....	.....	.....
Regina.....	11	653	5	2	2	1	.....	7	58	77	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saskatoon.....	11	628	7	6	1	1	.....	1	64	128	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
SASKATCHEWAN.....	22	25	1,281	12	8	3	2	8	122	205	1	.....	.....	.....	.....	58	.....	.....	.....	.....
Calgary.....	7	15	418	5	9	13	1	5	26	48	1	.....	.....	.....	.....	45	.....	.....	.....	.....
Edmonton.....	9	20	1,043	33	19	5	3	5	54	134	3	.....	.....	.....	8	701	.....	1	.....	.....
ALBERTA.....	16	35	1,461	38	28	18	4	10	80	182	4	.....	.....	.....	8	746	.....	1	.....	.....
Vancouver, B.C.....	8	6	259	.....	11	4	13	2	132	179	.....	.....	.....	.....	.....	22	.....	.....	.....	.....
Totals.....	871	412	11,592	103	640	167	106	374	2,356	3,871	6	24	55	.....	22	3,949	5	19	2	.....

DEPARTMENT OF TRADE AND COMMERCE

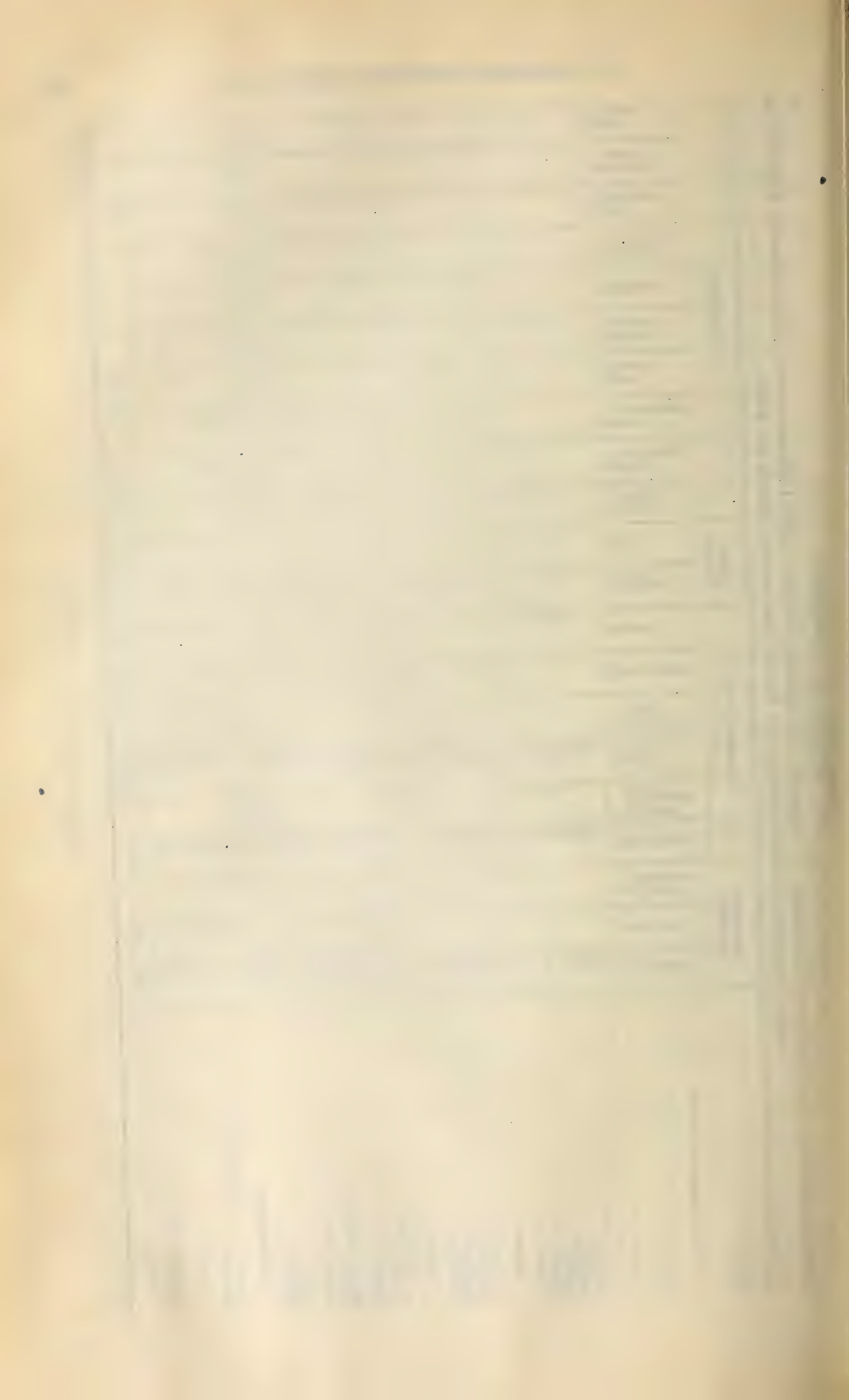
APPENDIX C—Continued

RETURN showing the Number of Measures of Capacity, Measuring Devices, Linal Measures and Miscellaneous Verified in each Inspection District during the Fiscal Year ended March 31, 1930

Inspection District	Measures of Capacity			Measuring Devices						Lineal Measures		Miscellaneous										
	Domination	Milk Cans	Ice Cream Containers	S. M. Pumps	Combined Pump and Visible	Visible	Measuring Tanks	Meter Pumps	Meters	Domination	Metric	Personal Weigher	Moisture Test Scales	Miner's Attachment	Tipple Scales	Weights-graphs	Totalizers	Salt Carts and Tubs	Fabric Measures	Bowls	Tank Wagon	
Belleville.....	3,050	14		460	6	1,195		1	1	224		8					1			5	8	
Hamilton.....	10,808			372	2	1,497		12	1	605		29					2			10		
London.....	6,235	481	2,281	189		1,438			2	3,379	1	13								3		
Ottawa.....	3,353	501		869	2	1,745		4	11			19					7		152			
Toronto.....	17,134	66,381	44,333	1,164	6	11,014		206	162	112		1,475					10					
ONTARIO.....	40,580	67,377	46,614	3,054	16	16,886		223	177	4,320	1	1,542							182	8	7,494	
Montreal.....	14,365			1,174	7	1,955		6	1	1,819		547							87		129	
Quebec.....	11,063			572		1,329		2		1,918		46							9		44	
Sherbrooke.....	1,266			274	2	730		6		707		5					1				2	
Three Rivers.....	1,560			90		643				219								2			5	
QUEBEC.....	28,254			2,110	9	4,674		14	3	4,723		593					1	2	96		180	
St. John, N.B.....	1,843	395		481	11	994			3			23					5				21	
Halifax, N.S.....	1,970			430	16	1,372			26	105					17						23	
Charlottetown, P.E.I.....	678			163	4	200																
Winnipeg, Man.....	2,458	275		989	2	1,245		22	3	677		86							69		290	
Regina.....	491			773		1,199	8		4	348									6	10		
Saskatoon.....	383			633	6	1,089				130		5							3		31	
SASKATCHEWAN.....	874			1,406	6	2,288	8		4	478		5							9		41	
Calgary.....	1,455	987		542	1	862		3	4	329			2		14				8		72	
Edmonton.....	3,149	1,889		686		892	5	10	2	527		17			3	7			2		42	
ALBERTA.....	4,604	2,876		1,238	1	1,754	5	13	6	856		17			17	7	1		10		114	
Vancouver, B.C.....	747	161		688		750	48	9	4			103			7				9		43	
Totals.....	82,008	71,084	47,407	10,559	63	30,163	61	281	226	11,159	1	2,369	2	41	7	17	2	82	375		18	1,265

RETURN showing the Number of Measures of Capacity, Measuring Devices, Linal Measures and Miscellaneous Rejected in each Inspection District during the Fiscal Year ended March 31, 1930

Inspection District	Measures of Capacity			Measuring Devices						Lineal Measures		Miscellaneous									
	Dominion	Milk Cans	Ice Cream Containers	S. M. Pumps	Combined Pump and Visible	Visible	Measuring Tanks	Meter Pumps	Meters	Dominion	Metric	Personal Weigher	Moisture Test Scales	Miner's Attachment	Triple Scales	Weigh-to-graphs	Totalizers	Salt Carts and Tubs	Fabric Measures	Measuring Bowls	Tank Wagon
Belleville.....	20			63	2	231		8		1		12				2			1	2	6
Hamilton.....	93			102	3	653				16						1			3		1
London.....	2		1	70	3	507			1							1			1		
Ottawa.....	1			41	3	469			2												
Toronto.....				27	1	290		8				28				1			1		
ONTARIO.....	116		1	303	14	2,150		16	3	17		40				4			6	2	7
Montreal.....	12			90		405		18	3												
Quebec.....	38			36		164				67											
Sherbrooke.....				7		62		2								1					
Three Rivers.....				4		44															
QUEBEC.....	50			137		675		20	3	67											
St. John, N. B.....	1			23		27															
Halifax, N. S.....	162			115	1	34				13									1		
Charlottetown, P. E. I.....	4			23		5															
Winnipeg, Man.....	5			56		147		1				1							2		
Regina.....				55		71													1		
Saskatoon.....	1			43		48				26											
SASKATCHEWAN.....	1			98		119				26									1		
Calgary.....		12		34	1	117													1		
Edmonton.....	14	70		106	1	208		2	4	1				6	1						
ALBERTA.....	14	82		140	1	325		2	4	1				6	1						
Vancouver, B. C.....				106		100			3										1		
Totals.....	353	82	1	1,001	16	3,582		39	13	124		41		6	1	5			11	2	8



DEPARTMENT OF TRADE AND COMMERCE

OTTAWA, CANADA

HON. JAMES MALCOLM, Minister

F. C. T. O'HARA, Deputy Minister

ANNUAL REPORT

OF THE

ELECTRICITY AND GAS INSPECTION SERVICES

FOR THE FISCAL YEAR ENDING MARCH 31

1930



OTTAWA

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REPORT OF THE INSPECTION OF ELECTRICITY AND GAS

To the Honourable

OTTAWA, June 30, 1930.

The Minister of Trade and Commerce.

SIR,—I have the honour to submit the annual report on the Electricity and Gas Inspection Services, and also statements in connection therewith, for the fiscal year ended March 31, 1930.

F. C. T. O'HARA,
Deputy Minister.

ELECTRICITY AND GAS INSPECTION SERVICES

The fiscal year which ended on the 31st of March last was a record year in so far as the amount of work accomplished by the Electricity and Gas Inspection Services is concerned. The following statement gives a comparison of revenue and expenditure in the operation of these Services for the past two years. It also gives the revenue and expenditure connected with the administration of the Electricity and Fluid Exportation Act through the same period.

Electricity and Gas Inspection Acts—	1928-29	1929-30
Electricity meters tested.....	324,998	345,052
Gas meters tested.....	134,161	144,517
Total number of meters tested.....	459,159	489,569
Revenue—		
Electricity inspection.....	\$ 212,251 65	\$ 228,168 00
Gas inspection.....	92,447 90	100,838 10
Total revenue.....	\$ 304,699 55	\$ 329,006 10
Expenditure—		
Electricity inspection.....	\$ 143,790 81	\$ 162,866 61
Gas inspection.....	69,036 70	61,070 11
Total expenditure.....	\$ 203,827 51	\$ 223,936 72
Electricity and Fluid Exportation Act—		
Revenue—		
Export tax.....	\$ 351,103 78	\$ 318,042 36
Licence fees.....	675 00	750 00
Total revenue.....	\$ 351,783 78	\$ 318,792 36
Expenditure—		
Travelling expenses.....	\$ 283 81	\$ 210 14
Total revenue for branch.....	\$ 656,483 33	\$ 647,798 46
Total expenditures for branch.....	204,111 30	224,146 86
Surplus.....	\$ 452,372 03	\$ 423,651 60

The work of the Electricity and Gas Inspection Services for the fiscal year ended March 31st last constituted a record.

DEPARTMENT OF TRADE AND COMMERCE

As regards the Electricity and Gas Inspection Services this statement shows a general increase over the previous year. There is an increase in the total number of meters tested of 30,410; in revenue of \$24,306.55; and in expenditure of \$20,109.21. The surplus of revenue over expenditure for the year amounts to \$105,069.38, an increase of \$4,197.34 over the previous year.

The amounts required to pay the salaries of the officers at headquarters at Ottawa, and the rent, fuel and furniture for the Service as a whole do not enter into the calculations in arriving at the above figures.

GAS INSPECTION SERVICE

The Gas Inspection Service is conducted under the authority of the Gas Inspection Act, which requires that every gas meter used for ascertaining the quantity of gas supplied by any contractor to a purchaser shall be verified and sealed before it is installed for use. No meter shall be tested in Canada until the type of meter to which it belongs has been approved.

The total number of meters tested for the year was 144,517, an increase of 10,356 over the previous year, of which number 39,816 were new meters. The number of meters in use on March 31st, 1930, on manufactured gas was 520,788, an increase of 16,288 over the previous year.

The number of cubic feet of manufactured gas sold during the year was 18,418,879,100, an increase of 1,496,855,600 over the previous year. There were 3,646 calorific tests made throughout the Dominion of Canada, and the average heating value was found to be 492.8 B.T.U's per cubic foot.

The production of natural gas continues to increase very rapidly, the main increase being in the Turner Valley, near Calgary, Alberta. During the past year 31,880,844,600 cubic feet were supplied, an increase of 6,389,398,600 cubic feet. The number of meters in service on March 31st, 1930, measuring natural gas was 118,390, an increase of 10,796.

During the year one prosecution was instituted for infraction of the Gas Inspection Act, the offence being the illegal use of a gas meter seal. A conviction was obtained and fine imposed.

ELECTRICITY INSPECTION SERVICE

The Electricity Inspection Service is conducted under the authority of the Electricity Inspection Act and the organization set up to perform the work required by the Act is the same as that set up to perform the work required by the Gas Inspection Act. The same staff is responsible for the administration of the two Acts.

The Electricity Inspection Act defines a meter as, "An electric meter, and includes every kind of machine, apparatus or instrument used for making electrical measurements, and any device utilized for the purpose of obtaining the basis of a charge for electricity". No meter shall be admitted to verification in Canada until the type of meter to which it belongs has been approved.

In the event of a contractor or purchaser becoming dissatisfied with the condition or registration of his meter, he may have it tested by applying to an Inspector and following the procedure outlined in the Act.

The work connected with this Service continues to increase. During the past year 345,052 meters were tested, an increase of 20,054 over the previous year. The number of new meters tested was 109,289, and the total number of meters in service on March 31st, 1930, was approximately 1,582,600.

ELECTRICAL AND GAS STANDARDS LABORATORIES

The work performed in the laboratories in Ottawa, Winnipeg and Vancouver continues to play a very important part in the activities of the Electricity and Gas Inspection Services. The periodic calibration and checking of the

inspection standards supplied to the outside Inspectors is particularly important and requires more painstaking work each year as the outside companies are more exacting in their demands for greater accuracy.

During the past year 122 Rotating Standards, 49 Wattmeters, 26 Voltmeters and 24 Ammeters were checked for our own inspection service, and for outside companies and other departments of the Government 14 Rotating Standards, 24 Wattmeters, 15 Voltmeters and 8 Ammeters were checked.

In connection with the approval of meters for use in Canada, 42 electric meters and one gas meter were examined and tested, of which 15 electric meters and one gas meter were approved.

EXPORTATION OF ELECTRICAL ENERGY

The Electricity and Fluid Exportation Act is administered directly from the Head Office at Ottawa. Licences to export are granted under the authority of this Act by the Governor in Council. All meters measuring export power are checked at least once in every year.

During the past year the number of kilowatt hours produced for export was 1,497,106,389, a decrease of 107,105,887 as compared with the previous year. This decrease is equivalent to 16,389 horse-power years. The revenue collected by virtue of the export duty and licence fees was \$318,792.36 and the expenditure was \$210.14.

STAFF

During the year four new positions of Inspector of Electricity and Gas were created, all of which were filled by the Civil Service Commission following a competitive examination. A position of Special Meter and Transformer Tester was also created, which was filled by promotion. Three resignations were received during the year.

APPENDIX A

STATEMENT of Expenditures and Revenues for the Fiscal Year ended
March 31, 1930

District	District Inspector	Electricity Inspection Service		Gas Inspection Service	
		Total Expenditure	Total Revenue	Total Expenditure	Total Revenue
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—					
Belleville.....	W. H. Middleton..	8,306 09	6,638 85		2,746 20
Fort William.....	E. Little.....	2,834 85	2,411 40		
Hamilton.....	H. H. Wilson.....	2,536 19	16,611 90	14,122 85	12,932 80
London.....	J. C. Smith.....	15,315 81	17,833 75	910 89	10,735 20
Ottawa.....	J. A. Ham.....	12,129 58	10,331 65		1,857 20
Sudbury.....	L. H. Bouskill.....	3,300 64	4,930 80		248 60
Toronto.....	S. F. Johnstone..	28,632 77	40,239 55	118 13	21,122 20
Total for Ontario.....		\$ 73,055 93	98,997 90	15,151 87	49,642 20
QUEBEC:					
Montreal.....	R. J. Chevrier....	3,868 59	45,067 95	30,892 67	28,902 80
Quebec.....	J. A. Cantin.....	9,333 44	10,385 95		2,176 00
Three Rivers.....	A. Olivier.....	4,990 77	5,343 75		
Totals for Quebec.....		18,192 80	60,797 65	30,892 67	31,078 80
NEW BRUNSWICK:					
St. John.....	C. E. Grant.....	4,542 83	6,373 20	330 57	1,525 40
NOVA SCOTIA:					
Halifax.....	F. C. Pemberton..	4,937 19	4,880 40		655 00
P. E. ISLAND:					
Charlottetown.....	P. E. Palmer.....	970 57	666 20		
MANITOBA:					
Winnipeg.....	F. C. Babington..	1,292 16	17,005 45	10,680 00	3,705 30
SASKATCHEWAN:					
Regina.....	Louis Weber.....	8,262 10	10,915 75		
ALBERTA:					
Calgary.....	W. P. Kyle.....	7,291 55	5,404 00		4,446 80
Edmonton.....	A. J. Cantin.....	5,149 29	4,019 25		2,301 40
Totals for Alberta.....		12,440 84	9,423 25		6,748 20
BRITISH COLUMBIA:					
Nelson.....	H. B. Penny.....	3,018 73	2,140 80		150 60
Vancouver.....	G. T. Scouler.....	11,108 14	13,207 00		6,494 40
Victoria.....	S. A. Shrimpton..	494 74	3,585 70	2,820 00	788 20
Totals for British Columbia.....		14,621 61	18,933 50	2,820 00	7,433 20
Director.....	J. L. Stiver.....	722 66			
Supt. East. Div.....	H. M. Clark.....	4,269 39			
Supt. Cent. Div.....	S. N. Hart.....	3,711 41			
Supt. West. Div.....	J. Stott.....	3,965 45			
Temp. Salaries.....	Ottawa.....	1,080 00			
		13,748 91			
Total for Districts.....		152,064 94	227,993 30	59,875 11	100,788 10
Casual Revenue.....			3 45		50 00
General Contingencies.....		829 40		1,195 00	
Equipment.....		6,610 50			
Printing, Stationery and Govt. Sub's.....		2,987 71			
International Electrotechnical Commission.....		374 06			
Electrical Standards Laboratory Fees.....			171 25		
		162,866 61	228,168 00	61,070 11	100,838 10
Electricity and Fluid Exportation Act.....		210 14	318,042 36		
Export Licence Fees.....			750 00		
Printing of Parliamentary and Departmental Publications.....		913 38			

APPENDIX B

STATEMENT of Electric Meters Tested during the Fiscal Year 1929-30

District	Correct	Accepted		Rejected		New	Re-tests	Disputes	Totals	Class I	Class II	Class III	Class IV
		Not over 3% fast	Not over 3% slow	Over 3% fast	Over 3% slow								
Belleville.....	3,917	4,687	1,380	86	30	3,608	6,487	5	10,100	6,851	3,131	118	.....
Calgary.....	1,833	5,801	1,730	22	13	3,513	4,848	38	8,399	6,585	1,792	6	.....
Charlottetown.....	1,230	122	122	4	1	2,206	871	1	1,078	94	1,982	1	16
Edmonton.....	1,103	5,042	291	3	38	2,892	3,578	7	6,477	5,660	803	14	1
Fort William.....	288	2,949	396	.....	3	3,974	2,636	26	3,636	2,369	1,246	21	.....
Halifax.....	5,981	8,975	950	6	12	3,738	4,167	19	7,924	7,164	7,748	12	.....
Hamilton.....	13,002	8,329	3,027	8	8	6,530	17,777	67	24,374	13,044	10,962	308	.....
London.....	4,472	16,037	5,105	45	66	5,686	19,994	45	25,725	12,875	12,231	619	.....
Montreal.....	4,518	44,480	19,821	287	374	21,690	47,639	151	69,480	62,721	3,677	3,041	41
Nelson.....	1,720	1,577	44	1	.....	1,167	2,127	48	3,342	2,798	524	20	.....
Ottawa.....	1,967	10,162	3,325	107	118	4,654	10,970	55	15,679	10,704	4,765	210	.....
Quebec.....	2,718	11,122	2,795	15	5	7,068	9,539	48	16,655	15,386	1,071	187	11
Regina.....	6,299	8,713	2,038	64	185	7,945	9,317	37	17,299	13,840	3,453	6	.....
St. John.....	1,857	7,522	963	2	.....	3,213	7,122	9	10,344	9,332	996	16	.....
Sudbury.....	1,968	5,133	586	11	.....	2,652	5,047	.....	7,699	5,708	1,974	17	.....
Three Rivers.....	573	6,653	1,081	3	7	1,884	6,630	.....	8,317	7,015	1,095	207	.....
Toronto.....	15,132	29,922	11,900	164	234	16,181	41,090	81	57,352	29,338	25,855	2,159	.....
Vancouver.....	8,724	9,173	2,160	113	258	5,730	14,671	27	20,428	16,021	4,343	64	.....
Victoria.....	1,095	4,251	436	3	3	1,586	4,160	42	5,788	5,152	634	2	.....
Winnipeg.....	2,465	29,200	291	.....	.....	8,572	16,349	35	24,956	12,807	11,891	258	.....
Totals.....	79,862	205,449	57,441	944	1,356	109,289	235,019	744	345,052	246,352	91,285	7,346	69

APPENDIX C

STATEMENT of Gas Meters tested during the Fiscal Year 1929-30

District	Correct	Accepted		Rejected		New	Re-tests	Disputes	Totals	Class I 60c.	Class II \$1.00	Class III \$2.00	Class IV \$2.50 up
		Not over 2% fast	Not over 3% slow	Over 2% fast	Over 3% slow								
Belleville.....	1,359	370	900	43	79	248	2,488	15	2,751	2,717	32	2	.....
Calgary.....	800	578	4,885	11	.....	2,218	4,023	33	6,274	5,718	386	93	77
Edmonton.....	593	125	2,458	7	.....	859	2,310	14	3,183	2,769	300	82	32
Halifax.....	491	1	123	.....	1	264	351	1	616	545	50	15	6
Hamilton.....	7,521	1,688	9,593	9	15	5,678	13,105	43	18,826	18,058	663	42	63
London.....	2,074	2,481	10,100	11	2	4,206	10,450	12	14,668	13,547	981	48	92
Montreal.....	3,622	12,196	29,281	299	429	14,733	30,973	121	45,827	45,238	471	72	46
Nelson.....	4	1	145	1	.....	12	138	1	151	.....	.....	.....	.....
Ottawa.....	358	697	499	.....	.....	64	1,490	.....	1,554	1,412	76	33	33
Quebec.....	987	852	587	5	2	966	1,461	6	2,433	2,370	60	.....	3
St. John.....	501	274	823	.....	1	310	1,286	3	1,399	494	1,101	4	.....
Sudbury.....	106	253	25	.....	.....	376	8	.....	384	356	21	7	.....
Toronto.....	8,109	2,438	21,189	18	33	5,760	25,909	118	31,787	30,742	828	110	107
Vancouver.....	1,209	3,519	4,267	91	15	3,864	5,204	33	9,101	8,634	414	9	44
Victoria.....	194	420	208	3	2	204	615	8	827	702	123	2	.....
Winnipeg.....	2,004	443	2,087	1	1	54	4,469	13	4,536	4,408	111	4	13
Totals.....	29,932	26,336	87,170	499	580	39,816	104,280	421	144,517	137,861	5,617	523	516

APPENDIX D

MANUFACTURED Gas Companies Registered and Gas Tests made during Fiscal Year ended March 31st, 1930

ELECTRICITY AND GAS INSPECTION

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District	Company	Kind of Gas	Number of Meters	Class of Company	Calorific Tests Standard: 450 B.T.U.'s per cubic foot					Number of times below standard value
					B.T.U. values found					
					Number of Tests		High-est	Low-est	Aver-age	
					Pre-scribed	Made				
Belleville.....	Port Hope Gas Company.....	Coal.....	425	5	24	24	600.8	490.0	534.5	0
	Hydro Electric Power Commission of Cobourg.....	Coal.....	372	5	24	24	553.6	460.1	500.1	0
	Belleville Gas Department.....	C. & C. W.....	1,359	4	48	48	480.6	450.3	463.0	0
	Oshawa Utilities Commission.....	C.W.....	1,441	4	48	48	467.5	408.4	452.5	3
	Peterboro Utilities Commission.....	C.W.....	3,200	3	96	96	476.3	451.5	458.6	0
Halifax.....	Corporation of Brockville.....	C.W.....	2,023	3	96	96	558.2	504.3	525.9	0
	Corporation of Kingston.....	C.W.....	4,239	3	96	96	583.3	474.6	513.5	0
	Nova Scotia Light & Power Company.....	Coal.....	3,143	3	96	96	522.4	470.0	486.9	0
	United Gas & Fuel Company.....	M't'd.....	20,750	1	300	300	530.0	493.0	509.6	0
	Kitchener Public Utilities.....	C. & C.W.....	5,309	2	144	144	508.0	450.0	478.3	0
Hamilton.....	Public Utilities Commission of Waterloo.....	C. & C.W.....	1,094	2	144	144	508.0	450.0	478.3	0
	Hamilton By-Product Coke Ovens, Ltd.....	C.W.....	1,094	2	144	144	508.0	450.0	478.3	0
	City Gas Company of London.....	C. & C.W.....	13,485	1	300	300	593.0	475.0	521.6	0
	St. Thomas Gas Department.....	C. & C.W.....	3,256	3	96	96	611.0	500.0	553.0	0
	Stratford Gas Department.....	C. & C.W.....	877	5	24	24	586.0	450.0	502.0	0
Montreal.....	Montreal Light, Heat & Power Consolidated.....	Mixed.....	189,507	1	300	300	480.1	451.0	466.4	0
	Corporation of Sherbrooke.....	C.W.....	2,433	3	96	96	504.8	452.9	480.7	0
	Corporation of Nelson.....	Coal.....	645	5	24	24	464.1	450.7	455.9	0
	Ottawa Gas Company.....	Coal.....	15,678	1	300	300	525.0	481.2	501.7	0
	Quebec Gas Company.....	C.W.....	10,440	1	274	274	527.4	450.0	476.8	0
St. John.....	New Brunswick Power Company.....	Coal.....	1,838	4	48	48	580	462.0	513.5	0
	Citizen's Gas Company, St. Stephen.....	Coal.....	170	4	48	48	580	462.0	513.5	0
	Great Northern Gas Company, Ltd., Sault Ste. Marie.....	Coal.....	170	4	48	48	580	462.0	513.5	0
	Consumers Gas Company.....	Coke oven.....	1,557	1	300	300	528.0	477.0	497.6	0
	Corporation of Guelph.....	C. & C.W.....	164,260	3	96	96	525.0	468.0	490.0	0
Toronto.....	Corporation of Owen Sound.....	C. W.....	4,550	3	96	96	504.3	442.2	467.7	1
	Corporation of Barrie.....	C.W.....	1,400	4	48	48	504.3	442.2	467.7	1
	British Columbia Electric Power & Gas Company, Ltd.....	C.W.....	350	5	24	24	605.1	464.6	522.2	0
	Victoria Gas Company.....	M't'd.....	42,335	1	300	300	495.4	436.9	464.1	10
	Winnipeg Electric Company, Ltd.....	Coal.....	4,742	3	96	96	483.0	452.6	466.9	0
Vancouver.....	Winnipeg Electric Company, Ltd.....	Coke oven.....	18,618	1	300	300	589.2	465.4	531.6	0
	Canada Gas & Electric Corporation (Brandon).....	Coal.....	1,292	4	48	48	506.7	451.2	473.4	0
	Totals.....		520,788		3,646	3,646	600.8	408.4	492.8	14

APPENDIX E

NATURAL Gas Companies Registered

District	Name of Company	Location	Number of Meters
Calgary.....	The Town of Bow Island.....	Bow Island.....	130
	The Canadian Western Natural Gas, Light, Heat & Power Co.....	Calgary—	
		Bowness.....	13
		Brooks.....	168
		Calgary.....	17,565
		Claresholm.....	297
		Field.....	1
		Granum.....	109
		High River.....	332
		Lethbridge.....	1,927
		MacLeod.....	358
		Main Line.....	39
		Nanton.....	216
		Okotoks.....	186
		Parkland.....	27
		Staveley.....	100
		Taber.....	46
		Turner Valley Line.....	9
	Illinois-Alberta Oils, Limited.....	Calgary.....	
	United Natural Gas Development Company..	Calgary.....	
	Royalite Oil Company.....	Calgary.....	
	Dalhousie Oil Company, Ltd.....	Calgary.....	
	Foothills Oil & Gas Company, Ltd.....	Calgary.....	
	Home Oil Company, Ltd.....	Calgary.....	
	McLeod Oil Company, Ltd.....	Calgary.....	
	Associated Oil Company, Ltd.....	Calgary.....	
	Vanalta Oils, Limited.....	Calgary.....	
	City of Medicine Hat.....	Medicine Hat.....	2,690
	Canadian Western Power & Fuel Company, Ltd.....	Redcliffe.....	279
	W. F. Higgins Estate.....	Suffield.....	
Edmonton.....	Northwestern Utilities Limited.....	Bruce.....	42
	" ".....	Edmonton.....	9,183
	" ".....	Holden.....	83
	" ".....	Ryley.....	86
	" ".....	Shonts.....	3
	" ".....	Tofield.....	138
	" ".....	Viking.....	176
	" ".....	Wainwright.....	274
Hamilton.....	The Dominion Natural Gas Co., Ltd.....	Blackheath.....	
	Brantford Gas Company.....	Brantford.....	3,816
	The Provincial Natural Gas Company of Ontario, Ltd.....	Bridgeburg.....	1,335
	The Dominion Natural Gas Company, Ltd.....	Cayuga.....	285
	Chippawa Development Company, Ltd.....	Chippawa.....	15
	The Dominion Natural Gas Company, Ltd.....	Delhi.....	285
	" ".....	Dundas.....	1,205
	" ".....	Dunnville.....	1,432
	" ".....	Echo.....	222
	Fonthill & Ridgeville Gas Company.....	Fonthill.....	181
	Lake Shore Natural Gas Company.....	Fort Erie.....	367
	The Dominion Natural Gas Company, Ltd.....	Galt.....	1,422
	Grimsby Natural Gas Company, Ltd.....	Grimsby.....	295
	The Dominion Natural Gas Company, Ltd.....	Hagersville.....	415
	" ".....	Hamilton.....	6,383
	" ".....	Hamilton.....	33
	Midfield Natural Gas Company, Ltd.....	Jarvis.....	237
	The Dominion Natural Gas Company, Ltd.....	Lowbanks.....	8
	R. H. Smith.....	Lynedock.....	51
	The Dominion Natural Gas Company, Ltd.....	Moulton & Canboro.....	34
	Cliff Gas Company, Ltd.....		
	The Provincial Natural Gas Company of Ontario, Ltd.....	Niagara Falls.....	2,851
	The Dominion Natural Gas Company, Ltd.....	Paris.....	609
	" ".....	Port Colborne.....	1,874
	The Port Colborne-Welland Natural Gas Company, Ltd.....	Port Colborne.....	639
	The Dominion Natural Gas Company, Ltd.....	Port Dover.....	552
	" ".....	Port Rowan.....	246
	" ".....	St. Catharines.....	6,130
	" ".....	St. George.....	100
	" ".....	St. William.....	105

APPENDIX E—Concluded

NATURAL Gas Companies Registered

District	Name of Company	Location	Number of Meters
Hamilton—Con.	The Provincial Natural Gas Company of Ontario, Ltd.	Skerkston	2,144
	The Dominion Natural Gas Company, Ltd.	Selkirk	984
	Industrial Natural Gas Company, Ltd.	Simcoe	1,856
	The Provincial Natural Gas Company of Ontario, Ltd.	Welland	
London	J. A. Coleman	Welland	2,524
	The Dominion Natural Gas Company, Ltd.	Wellandport	32
	Southern Ontario Gas Company	Victoria	80
	Central Pipe Line Company	Aldboro	22
	Southern Ontario Gas Company	Aylmer	673
	Ontario Salt Company	Beaver Division	1,215
	Union Natural Gas Company	Belmont	59
	"	Blenheim	556
	"	Chatham	4,060
	Southern Ontario Gas Company	Dorchester and Wallacetown	167
	Union Natural Gas Company	Dresden	510
	Southern Ontario Gas Company	Dunwich Township	52
	Southern Ontario Gas Company	Dutton	265
	Union Natural Gas Company	Essex	494
	"	Ford	1,873
	Southern Ontario Gas Company	Glenwood Division	
	Southern Ontario Gas Company	Highgate	112
	Dominion Natural Gas Company	Ingersol	1,010
	Southern Ontario Gas Company	Lambeth	83
	Town of Leamington	Leamington	1,456
	Southern Ontario Gas Company	Leamington Co.	631
	Central Pipe Line Company	Malahide and Bayham	77
	Oil Springs Oil & Gas Company, Ltd.	Oil Springs	143
	Southern Ontario Gas Company	Oxford and Howard Township	53
	Union Natural Gas Company	Petrolia	768
	Central Pipe Line Company	Port Burwell	84
	Southern Ontario Gas Company	Raleigh Township	14
	Union Natural Gas Company	Ridgetown	637
	"	Riverside	320
	Southern Ontario Gas Company	Rodney	239
	Union Natural Gas Company	Sarnia	4,624
	"	Sandwich	1,290
	Southern Ontario Gas Company	Shedden and Fingal	133
	"	Southwold Township	120
	Union Natural Gas Company	Tilbury	502
	Dominion Natural Gas Company	Tillsonburg	1,445
	Central Pipe Line Company	Vienna	73
	Union Natural Gas Company	Wallaceburg	1,211
	"	Walkerville	1,757
	Southern Ontario Gas Company	West Lorne	214
	"	Westminster Township	148
	Southern Ontario Gas Company	Wheatley County	241
	Union Natural Gas Company	Windsor	10,828
	Dominion Natural Gas Company	Woodstock Township	1,800
St. John	Moncton Tramways, Electricity & Gas Company, Ltd.	Moncton	5,207
Total number of meters			118,390

APPENDIX F

ACETYLENE Gas Companies Registered

District	Company	Location	Number of Meters
Ottawa	The People's Gas Supply Company, Ltd.	Ottawa, Ont.	1
Winnipeg	Shawinigan Chemicals Limited	Morris, Man.	66
	Souris Consumers Gas Company (out of business from Sept. 30th, 1929)	Souris, Man.	50
Total number of meters			117

APPENDIX G

STATEMENT showing amount of Electrical Energy, Gas or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the year ending 31st day of March, 1930.

Name of Contractor and place of business	Month	Units produced for export		Units produced for use in Canada		Total output of generating Station or other Source	
		K.W. hours	H.P. years	K.W. hours	H.P. years	K.W. hours	H.P. years
Hydro-Electric Power Commission of Ontario, Toronto, Ont.	April.....	32,038,800	4,902.68	264,271,000	40,439.57	296,309,800	45,342.25
	May.....	33,338,500	5,101.56	272,865,101	41,754.67	306,203,600	46,856.23
	June.....	32,663,500	4,998.27	256,340,600	39,226.04	289,004,100	44,224.31
	July.....	33,577,700	5,138.16	259,353,900	39,687.14	292,931,600	44,825.30
	Aug.....	33,822,500	5,175.62	270,603,700	41,408.62	304,426,200	46,584.24
	Sept.....	32,706,400	5,004.84	259,714,100	39,742.26	292,420,500	44,747.10
	Oct.....	33,808,400	5,173.47	272,774,200	41,740.76	306,582,600	46,914.23
	Nov.....	32,760,000	5,013.04	266,000,600	40,017.10	298,760,600	45,717.28
	Dec.....	33,059,100	5,058.81	274,580,100	42,017.10	307,639,200	47,075.91
	Jan.....	33,418,400	5,113.79	278,380,600	42,598.67	311,799,000	47,712.46
	Feb.....	30,053,900	4,598.94	240,173,700	36,752.13	270,227,600	41,351.07
	March.....	33,029,600	5,054.29	264,837,200	40,526.21	297,866,800	45,580.50
	Totals..	394,276,800	60,333.47	3,179,894,800	486,597.41	3,574,171,600	546,930.88
Hydro Electric Power Commission of Ontario, Toronto, Ont. (surplus)	April.....	20,914,200	3,200.36	.....	.....	20,914,200	3,200.36
	May.....	19,577,400	2,995.79	.....	.....	19,577,400	2,995.79
	June.....	23,076,500	3,531.24	.....	.....	23,076,500	3,531.24
	July.....	27,315,400	4,179.89	.....	.....	27,315,400	4,179.89
	Aug.....	29,300,200	4,483.61	.....	.....	29,300,200	4,483.61
	Sept.....	34,463,000	5,273.64	.....	.....	34,463,000	5,273.64
	Oct.....	30,596,700	4,682.00	.....	.....	30,596,700	4,682.00
	Nov.....	32,896,100	5,033.86	.....	.....	32,896,100	5,033.86
	Dec.....	16,038,000	2,454.18	.....	.....	16,038,000	2,454.18
	Jan.....	20,301,400	3,106.58	.....	.....	20,301,400	3,106.58
	Feb.....	33,417,000	5,113.57	.....	.....	33,417,000	5,113.57
	March.....	28,507,600	4,362.32	.....	.....	28,507,600	4,362.32
	Totals..	316,403,500	48,417.04	.....	.....	316,403,500	48,417.04
Cedars Rapids Manufacturing and Power Company, Ltd., Montreal, Que.	April.....	34,942,234	5,346.97	38,295,366	5,860.07	73,237,600	11,207.04
	May.....	32,993,241	5,048.73	40,955,559	6,267.15	73,948,800	11,315.88
	June.....	38,786,103	5,935.17	37,538,097	5,744.20	76,324,200	11,679.37
	July.....	41,546,819	6,357.62	38,871,181	5,948.18	80,418,000	12,305.80
	Aug.....	46,609,146	7,132.28	40,118,454	6,139.05	86,727,600	13,271.33
	Sept.....	46,837,685	7,167.25	42,886,015	6,562.55	89,723,700	13,729.80
	Oct.....	37,742,421	5,775.46	49,765,519	7,615.27	87,507,940	13,390.73
	Nov.....	35,054,516	5,364.15	41,903,484	6,412.20	76,958,000	11,776.35
	Dec.....	28,543,926	4,367.88	47,238,574	7,228.59	75,782,500	11,596.47
	Jan.....	34,016,287	5,205.28	46,237,213	7,075.36	80,253,500	12,280.64
	Feb.....	32,848,287	5,026.55	40,412,713	6,184.08	73,261,000	11,210.63
	March.....	38,475,797	5,887.70	43,525,203	6,660.35	82,001,000	12,548.05
	Totals..	448,396,462	68,615.04	507,747,378	77,697.05	956,143,840	146,312.09
Canadian Niagara Power Co., Ltd., Niagara Falls, Ont.	April.....	23,236,300	3,555.69	25,876,600	3,959.72	49,112,900	7,515.41
	May.....	26,385,000	4,037.51	27,588,900	4,221.74	53,973,900	8,259.25
	June.....	25,947,900	3,970.63	26,580,300	4,067.40	52,528,200	8,038.03
	July.....	27,051,400	4,139.49	27,375,300	4,189.05	54,426,700	8,328.54
	Aug.....	24,526,900	3,753.18	30,126,100	4,609.99	54,653,000	8,363.17
	Sept.....	23,868,600	3,652.45	29,278,500	4,480.29	53,147,100	8,132.74
	Oct.....	25,033,700	3,830.73	29,942,900	4,581.96	54,976,600	8,412.69
	Nov.....	24,367,100	3,728.73	28,917,300	4,425.02	53,284,400	8,153.75
	Dec.....	24,776,500	3,791.38	27,371,800	4,188.52	52,148,300	7,979.90
	Jan.....	26,483,000	4,052.51	27,514,500	4,210.35	53,997,500	8,262.86
	Feb.....	23,121,500	3,538.12	25,099,400	3,840.79	48,220,900	7,378.91
	March.....	28,905,400	4,423.19	23,626,600	3,615.42	52,532,000	8,038.61
	Totals..	303,703,300	46,473.61	329,298,200	50,390.25	633,001,500	96,863.86
Canadian Niagara Power Co., Ltd., Niagara Falls, Ont. (surplus).	April.....	.....	.....	.....	.....	.....	.....
	May.....	.....	.....	.....	.....	.....	.....
	June.....	41,800	6.40	.....	.....	41,800	6.40
	July.....	42,000	6.43	.....	.....	42,000	6.43
	Aug.....	.....	.....	.....	.....	.....	.....
	Sept.....	2,900	0.44	.....	.....	2,900	0.44
	Oct.....	.....	.....	.....	.....	.....	.....
	Nov.....	1,000	0.15	.....	.....	1,000	0.15
	Dec.....	15,800	2.42	.....	.....	15,800	2.42
	Jan.....	.....	.....	.....	.....	.....	.....
	Feb.....	3,100	0.47	.....	.....	3,100	0.47
	March.....	.....	.....	.....	.....	.....	.....
	Totals..	106,600	16.31	.....	.....	106,600	16.31

APPENDIX G—Continued

STATEMENT showing amount of Electrical Energy, Gas, or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the year ending 31st day of March, 1930.

Name of Contractor and place of business	Month	Units produced for export		Units produced for use in Canada		Total output of generating Station or other Source	
		K.W. hours	H.P. years	K.W. hours	H.P. years	K.W. hours	H.P. years
Western Power Company of Canada, Limited, Vancouver, B.C.	April			16,464,800	2,519.49	16,464,800	2,519.49
	May			19,379,600	2,965.52	19,379,600	2,965.52
	June			26,843,000	4,107.60	26,843,000	4,107.60
	July	6,264	0.96	26,988,436	4,129.85	26,994,700	4,130.81
	Aug.			19,496,800	2,983.46	19,496,800	2,983.46
	Sept.	5,795	0.89	23,207,005	3,551.21	23,212,800	3,552.10
	Oct.	2,349	0.36	23,406,451	3,581.73	23,408,800	3,582.09
	Nov.			20,568,800	3,147.50	20,568,800	3,147.50
	Dec.			15,183,700	2,323.46	15,183,700	2,323.46
	Jan.			16,535,600	2,530.33	16,535,600	2,530.33
	Feb.			24,928,400	3,814.62	24,928,400	3,814.62
	March			29,307,600	4,484.74	29,307,600	4,484.74
	Totals..	14,408	2.21	262,310,192	40,139.51	262,324,600	40,141.72
Ontario & Minnesota Power Company, Ltd., Fort Frances, Ont.	April	1,517,500	232.21	376,700	57.64	1,894,200	289.85
	May	1,407,700	215.41	377,500	57.77	1,785,200	273.18
	June	1,285,000	196.63	368,700	56.42	1,653,700	253.05
	July	1,557,600	238.35	364,900	55.84	1,922,500	294.19
	Aug.	1,580,000	241.87	374,100	57.25	1,954,700	299.12
	Sept.	1,267,500	193.96	440,000	67.33	1,707,500	261.29
	Oct.	1,093,000	167.38	472,000	72.23	1,565,800	239.61
	Nov.	938,600	143.63	438,300	67.07	1,376,900	210.70
	Dec.	746,200	114.18	486,200	74.40	1,232,400	188.58
	Jan.	744,300	113.89	474,700	72.64	1,219,000	186.53
	Feb.	497,800	76.17	393,800	60.26	891,600	136.43
	March	607,700	92.99	408,500	62.51	1,016,200	155.50
	Totals..	13,244,300	2,026.67	4,975,400	761.36	18,219,700	2,788.03
Maine & New Brunswick Electrical Power Co., Presque Isle, Maine, U.S.A.	April	845,489	129.38	244,911	37.48	1,090,400	166.86
	May	803,379	122.94	196,521	30.07	999,900	153.01
	June	790,876	121.02	185,824	28.44	976,700	149.46
	July	722,122	110.50	186,678	28.57	908,800	139.07
	Aug.	770,318	117.88	206,982	31.67	977,300	149.65
	Sept.	919,719	140.74	224,981	34.43	1,144,700	175.17
	Oct.	1,061,348	162.41	264,052	40.41	1,325,400	202.82
	Nov.	1,033,587	158.16	267,013	40.86	1,300,600	199.02
	Dec.	1,161,976	177.81	309,324	47.33	1,471,300	225.14
	Jan.	1,104,248	168.97	257,552	39.41	1,361,800	208.38
	Feb.	941,397	144.06	216,103	33.07	1,157,500	177.13
	March	1,015,415	155.38	197,385	30.20	1,212,800	185.58
	Totals..	11,169,874	1,709.25	2,757,326	421.94	13,927,200	2,131.19
British Columbia Electric Railway Company, Ltd., Vancouver, B.C.	April	67,956	10.40	16,980,344	2,598.38	17,048,300	2,608.78
	May	64,855	9.92	11,779,845	1,802.59	11,844,700	1,812.51
	June	63,275	9.68	3,555,825	544.12	3,619,100	553.80
	July	65,597	10.04	4,289,503	656.39	4,355,100	666.43
	Aug.	69,348	10.61	13,918,752	2,129.89	13,988,100	2,140.50
	Sept.	72,899	11.16	11,912,601	1,822.90	11,985,500	1,834.06
	Oct.	82,382	12.61	13,779,718	2,108.61	13,862,100	2,121.22
	Nov.	87,093	13.33	17,440,407	2,668.78	17,527,500	2,682.11
	Dec.	27,538	4.21	18,380,182	2,812.59	18,407,720	2,816.80
	Jan.	30,103	4.61	23,629,885	3,615.91	23,659,988	3,620.52
	Feb.	10,540	1.61	10,429,278	1,595.92	10,439,818	1,597.53
	March			8,515,438	1,303.06	8,515,438	
	Totals..	641,586	98.18	154,611,778	23,659.14	155,253,364	23,757.32
Northport Power & Light Company, Rossland, B.C.	April	38,775	5.93	44,099,325	6,748.21	44,138,100	6,754.14
	May	33,334	5.10	45,033,266	6,891.13	45,066,600	6,896.23
	June	12,414	1.90	43,385,686	6,639.01	43,398,100	6,640.91
	July	13,945	2.13			13,945	2.13
	Aug.	17,183	2.63			17,183	2.63
	Sept.	20,034	3.07			20,034	3.07
	Oct.	25,302	3.87			25,302	3.87
	Nov.	33,995	5.20			33,995	5.20
	Dec.	34,190	5.23			34,190	5.23
	Jan.	33,547	5.13			33,547	5.13
	Feb.	27,432	4.20			27,432	4.20
	March	26,977	4.13			26,977	4.13
	Totals..	317,128	48.52	132,518,277	20,278.35	132,835,405	20,326.87

APPENDIX G—Continued

STATEMENT showing amount of Electrical Energy, Gas, or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the year ending 31st day of March, 1930.

Name of Contractor and place of business	Month	Units produced for export		Units produced for use in Canada		Total output of generating Station or other Source	
		K.W. hours	H.P. years	K.W. hours	H.P. years	K.W. hours	H.P. years
Maritime Electric Company, Limited, St. Stephen, N.B.	April.....	103,289	15.81	131,087	20.06	234,376	35.87
	May.....	100,507	15.38	137,800	21.09	238,307	36.47
	June.....	93,650	14.33	141,550	21.66	235,200	35.99
	July.....	90,650	13.87	151,750	23.22	242,400	37.09
	Aug.....	102,500	15.68	151,200	23.14	253,700	38.82
	Sept.....	37,200	5.69	121,800	18.64	159,000	24.33
	Oct.....	46,000	7.04	165,300	25.29	211,300	32.33
	Nov.....	51,600	7.90	173,400	26.53	225,000	34.43
	Dec.....	62,400	9.55	193,300	29.58	255,700	39.13
	Jan.....	66,000	10.10	177,400	27.15	243,400	37.25
	Feb.....	53,500	8.19	110,150	16.85	163,650	25.04
	March.....	62,000	9.49	113,000	17.29	175,000	26.78
	Totals..	869,296	133.03	1,767,737	270.50	2,637,033	403.53
Southern Canada Power Co., Montreal, P.Q.	April.....	36,200	5.54	1,287,400	197.00	1,323,600	202.54
	May.....	33,200	5.08	1,115,600	170.71	1,148,800	175.79
	June.....	26,800	4.10	1,122,000	171.69	1,148,800	175.79
	July.....	30,950	4.74	1,097,050	167.87	1,128,000	172.61
	Aug.....	33,500	5.13	1,094,500	167.48	1,128,000	172.61
	Sept.....	40,782	6.24	1,079,218	165.14	1,120,000	171.38
	Oct.....	37,900	5.80	1,191,100	182.26	1,229,000	188.06
	Nov.....	38,700	5.92	1,088,300	165.53	1,127,000	172.45
	Dec.....	36,150	5.53	929,050	142.16	965,200	147.69
	Jan.....	36,350	5.56	1,036,050	158.54	1,072,400	164.10
	Feb.....	36,300	5.55	1,026,500	157.08	1,062,800	162.63
	March.....	30,000	4.59	1,480,800	226.60	1,510,800	231.19
	Totals..	416,832	63.78	13,547,568	2,073.06	13,964,400	2,136.84
Northern British Columbia Power Company, Ltd., Stewart, B.C.	April.....	5,100	0.78	14,972	2.29	20,072	3.07
	May.....	5,010	0.77	15,015	2.29	20,025	3.06
	June.....	2,839	0.43	11,392	1.74	14,231	2.17
	July.....	2,430	0.37	8,093	1.24	10,523	1.61
	Aug.....	5,050	0.77	14,247	2.18	19,297	2.95
	Sept.....	670	0.10	14,047	2.15	14,717	2.25
	Oct.....	3,350	0.51	40,448	6.19	43,798	6.70
	Nov.....	4,060	0.62	40,448	6.19	44,508	6.81
	Dec.....	4,230	0.65	57,664	8.82	61,894	9.47
	Jan.....	4,580	0.70	42,624	6.52	47,204	7.22
	Feb.....	3,010	0.46	38,910	5.95	41,920	6.41
	March.....	3,010	0.46	38,910	5.95	41,920	6.41
	Totals..	40,329	6.16	297,860	45.56	338,189	51.72
The International Railway Company, Buffalo, N.Y.	April.....	80,610	12.34	115,935	17.74	196,545	30.08
	May.....	85,680	13.11	111,720	17.09	197,400	30.20
	June.....	82,310	12.60	76,290	11.67	158,600	24.27
	July.....	22,500	3.44	139,200	21.30	151,700	24.74
	Aug.....	22,500	3.44	181,700	27.80	204,200	31.24
	Sept.....	21,770	3.33	154,330	23.62	176,100	26.95
	Oct.....	84,580	12.94	133,920	20.49	218,500	33.43
	Nov.....	57,444	8.79	200,856	30.74	258,300	39.53
	Dec.....	59,350	9.08	214,450	32.82	273,800	41.90
	Jan.....	59,350	9.08	254,650	38.97	314,000	48.05
	Feb.....	56,800	8.69	183,400	28.06	240,200	36.75
	March.....	84,880	12.99	149,320	22.85	234,200	35.84
	Totals..	717,774	109.83	1,914,771	293.15	2,632,545	402.98
Fraser Companies, Ltd., Edmundston, N.B.	April.....	475,000	72.69	545,000	83.39	1,020,000	156.08
	May.....	709,200	108.52	.....	.....	709,200	108.52
	June.....	722,000	110.48	.....	.....	722,000	110.48
	July.....	777,000	118.90	.....	.....	777,000	118.90
	Aug.....	760,000	116.30	.....	.....	760,000	116.30
	Sept.....	497,000	75.05	.....	.....	497,000	75.05
	Oct.....	664,000	101.61	.....	.....	664,000	101.61
	Nov.....	762,000	116.60	.....	.....	762,000	116.60
	Dec.....	641,000	98.09	.....	.....	641,000	98.09
	Jan.....	156,000	23.87	.....	.....	156,000	23.87
	Feb.....	99,000	15.15	.....	.....	99,000	15.15
	March.....	526,000	80.49	44,900	6.87	570,900	87.36
	Totals..	6,788,200	1,038.75	589,900	90.26	7,378,100	1,129.01

APPENDIX G—Concluded

STATEMENT showing amount of Electrical Energy, Gas, or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the year ending 31st day of March, 1930.

SUMMARY

Name of Contractor and place of business	Units produced for export		Units produced for use in Canada		Total output of generating Station or other Source	
	K.W. hours	H.P. years	K.W. hours	H.P. years	K.W. hours	H.P. years
Hydro Elec. Power Comm. of Ontario	394,276,800	60,333.47	3,179,894,800	486,597.41	3,574,171,600	546,930.88
Hydro Elec. Power Commn. (surplus)	316,403,500	48,417.04			316,403,500	48,417.04
Cedars Rapids Mfg. & Power Company	448,396,462	68,615.04	507,747,378	77,697.05	956,143,840	146,312.09
Canadian Niagara Power Co., Ltd.	303,703,300	46,473.61	329,298,200	50,390.25	633,001,500	96,863.86
Canadian Niagara Power Co. (surplus)	106,600	16.31			106,600	16.31
Western Power Company of Canada...	14,408	2.21	262,310,192	40,139.51	262,324,600	40,141.72
Ontario & Minnesota Power Co., Ltd. .	13,244,300	2,026.67	4,975,400	761.36	18,219,700	2,788.03
Maine & New Brunswick Elec. Pr. Co.	11,169,874	1,709.25	2,757,326	421.94	13,927,200	2,131.19
British Columbia Electric Rly. Co. . .	641,586	98.18	154,611,778	23,659.14	155,253,364	23,757.32
Northport Power & Light Company...	317,128	48.52	132,518,277	20,278.35	132,835,405	20,326.87
Maritime Electric Company.....	869,296	133.03	1,767,737	270.50	2,637,033	403.53
Southern Canada Power Company.....	416,832	63.78	13,547,568	2,073.06	13,964,400	2,136.84
Northern British Columbia Power Co.	40,329	6.16	297,860	45.56	338,189	51.72
The International Railway Company...	717,774	109.83	1,914,771	293.15	2,632,545	402.98
Fraser Companies, Limited.....	6,788,200	1,038.75	589,900	90.26	7,378,100	1,129.01
Totals.....	1,497,106,389	229,091.85	4,592,231,187	702,717.54	6,089,337,576	931,809.39

APPENDIX H—Continued List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Charlottetown—</i>							
R. H. Gordon.....	Alberton.....	1-3	60	220	110		125
Chas. Murray Electric Light Co.....	Bradallane.....	D.C.			110		18
Cardigan Electric Company, Ltd.....	Cardigan.....	2	60	110	110	4	38
Maritime Electric Company, Ltd.....	Charlottetown.....	1-3	60	220	110	98	2,728
H. Leard.....	Crapaud.....	1-2	60	110	110		40
Scales Hydro Electric Company, Ltd.....	Freetown.....	3	60	220	110		238
Hunter River Electric Light Co., Ltd.....	Hunter River.....	3	60	110/220	115		41
Montague Electric Company, Ltd.....	Montague.....	1-3	60	110	110		340
Leards Hydro Electric Plant.....	Mount Stewart.....	2-3	60	110	110		31
Charles W. Ives.....	North Tryon.....	1-3	60		110		90
The Town of Souris.....	Souris.....	2	50	220	110		122
The Town of Summerside.....	Summerside.....	1-3	60		110	43	677
Total number of meters in the District of Charlottetown.....						145	4,478
<i>Hablar—</i>							
Canada Electric Company, Limited.....	Amherst.....	1-3	60	2,200/220	110	65	1,710
Town of Annapolis Royal.....	Annapolis Royal.....	3	60	110	110	3	77
Town of Antigonish.....	Antigonish.....	1-3	60	2,300	110	21	329
Electric Light Commissioners.....	Aylesford.....	D.C.	60	110		5	111
Norman Bethune.....	Baddeck.....	1-3	60	115/230	110		42
Barrington Electric Company, Ltd.....	Barrington.....	2	60		115		80
Barrs Corners Electric Light Co., Ltd.....	Barr's Corners.....	3	60	110/220	110		24
Somerset Electric Light & Power Co., Ltd.....	Berwick.....	1-3	60	220	110	3	46
The Town of Berwick.....	Berwick.....	1-3	60	110/220	110	12	886
Annapolis Valley Electric Co., Ltd.....	Bridgetown.....	3	60	110/550	110	46	733
The Town of Bridgewater.....	Bridgewater.....	3	60	220	110	11	180
Water Commissioners.....	Canning.....	3	60	220	110	4	361
The Town of Canso.....	Canso.....	1-3	60	220	110	4	222
Chester Light & Power Co., Ltd.....	Chester.....	1	60	220	110		27
Electric Light Comm. of Upper Church St.....	Chipman's Corners.....	1	60	220/550	110	50	2,103
Dartmouth Gas, Electric Light, Heating & Power Co.....	Dartmouth.....	1-3	60	220	110	12	463
Digby County Power Board.....	Digby.....	1-3	60	220	110	44	352
The Electric Light Committee.....	Digby.....	1	25		110		405
The Town of Dominion.....	Dominion.....	1-3	60	110	110	5	44
Gaspereau Valley Electric Light Co., Ltd.....	Gaspereau.....	1-3	25 & 60	220/550/2,200/3,600	110/220	80	74
Dominion Coal Company, Limited.....	Glace Bay.....	1-3	60	110	110	20	2,402
The Town of Glace Bay.....	Glace Bay.....	1-2	60	110	110	5	84
Gratton Elec. Light & Power Co., Ltd.....	Gratton.....	3	60	2,200	220/110		33
Lower Horton Electric Co., Ltd.....	Grand Pre.....	1-3	60				

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APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>St. John—</i>							
The Andover & Perth Electric Light Co.	Andover.....	1-3	60	110/220	110	21	223
Maine & N.B. Electrical Power Co., Ltd.	Aroostook Jct.....	1-3	60	110/220/550	110	4	96
Bathurst Electric & Water Power Co., Ltd.	Bathurst.....	1-3	60	110/220/550	110/220	24	841
Bathurst Power & Paper Co., Ltd.	Bathurst.....	1-3	60	35,000/2,000	2,000/100	3	2
Bristol	Britsol.....	1-3	60	2,200	110	50	301
Town of Campbellton	Campbellton.....	1-2-3	60	2,200/550/220	110	93	1,310
Clair Electric Company	Clair.....	1-3	60	110/220	110	2	1,17
C. M. Sherwood, Ltd.	Centreville.....	1-3	60	220	112	16	118
Town of Chatham (Light Dept.)	Chatham.....	1-3	60	110	110	2	641
King Lumber Co. Ltd.	Chipman.....	1-2	60	220	110	2	24
Town of Dalhousie	Dalhousie.....	1-3	60	550	115	36	377
Dorchester Penitentiary	Dorchester.....	1-3	60	600/2,300	110/220	32	36
Fraser Companies, Limited	Edmundston.....	1-3	60	110/220/550	110	14	1
Corporation of Edmundston	Edmundston.....	1-2	60	220/110, 440/2,200	110/220	61	1,157
Maritime Electric Company, Ltd.	Frederton.....	1-3	60	220/110, 2,200/550	110	12	2,377
The St. John River Power Company	Grand Falls.....	1-3	60	110/220/550	110	12	310
Town of Grand Falls	Grand Falls.....	1-3	60	110/220	110	2	163
The Grand Manan Light & Power Co.	Grand Manan.....	1	60	110/220	110	1	236
Hartland Electric Co., Ltd.	Hartland.....	1	60	110/220	110	1	49
Hartland Electric Light & Power Co.	Lakeville.....	1	60	110/220	110	1	3
Lakeville Electric Co.	Limestone, Me., U.S.A.	1	60	110	110	6	3
Limestone Electric Co.	Loggieville.....	D.C.	60	110	110	290	2
A. & R. Loggie	Marysville.....	1-3	60	110	110	356	356
Canadian Cottons, Limited	McAdam.....	3	60	220	110	107	107
Canadian Pacific Railway Co.	McAdam.....	3	60	550/220/110	110	110	4,879
McAdam Electric Light Co.	Minto.....	1-3	60	220	110	1	625
The Minto Coal Company, Ltd.	Moncton.....	1-2-3	60	220/110	110/220	16	139
Moncton Tramways Elec. & Gas Co., Ltd.	Milltown.....	3	60	110/220	110/220	2	2
Canadian Cottons, Limited	Newcastle.....	1-2	60	220	220	3	70
The Town of Newcastle	Plaster Rock.....	2-3	60	220	220	26	112
Plaster Rock, Water & Light Company	Port Elgin.....	D.C.	60	220	220	2	571
Fred Magee, Limited	Port Elgin.....	D.C.	60	220	220	2	234
Village of Port Elgin	Richibucto.....	1-3	60	220	220	2	32
Richibucto & Rexton Electric Light Co., Ltd.	Sackville.....	1-3	60	220	220	2	2
The Eastern Elec. & Dev. Co., Ltd.	St. Andrews.....	1	60	220	220	2	2
Aigonquin Hotel	St. Basile.....	1-3	60	220	220	2	2
St. Andrews Electric Lt. & Pr. Co.	St. Basile.....	1-3	60	220	220	2	2
St. Basile Electric Company	St. George.....	DC	60	220	220	2	2
St. George Pulp & Paper Company	St. George.....	DC	60	220	220	2	2

Town of St. George St. Hilaire Electric Company. The N. B. Electric Power Com. (Supplying)	3 1-3 1-3	60 60 60	110/220 2,300/550/220	110 110	4 8	215 19 2,835
St. George.....						
St. Hilaire.....						
St. John.....						
Acamac.....						
Apoahqui.....						
Barachois.....						
Bayard.....						
Berwick.....						
Blagdon.....						
Bloomfield.....						
Brule.....						
College Bridge.....						
Colpits.....						
Coverdale.....						
Dickson's Neck.....						
Dorchester.....						
Eagle Rock.....						
Elgin.....						
Epworth Park.....						
Fairvale.....						
Foxcreek.....						
Gondola Point.....						
Grand Bay.....						
Hampton.....						
Havelock.....						
Hillandale.....						
Ingleside.....						
Ketepee.....						
Lakeburn.....						
Langley.....						
Lower Millstream.....						
Martintown.....						
Meadow Brook.....						
Memramcook.....						
Morna.....						
Mt. Eagle.....						
Nanewegawau.....						
Nerepis.....						
Newton Heights.....						
Norton.....						
Ononette.....						
Painsec.....						
Pandenee.....						
Penobsquis.....						
Petitcodiac.....						
Pt. du Chene.....						
Quispamsis.....						
River Glade.....						
Sagwa.....						
Salisbury.....						
Saint Joseph.....						

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>St. John, N.B.—Concluded</i>	<i>St. John.</i>						
The N.B. Electric Power Com. (Serving).....	Salisbury.....						
	Scoudouc.....						
	Shediac.....						
	South Bay.....						
	St. Anselme.....						
	Sussex Corner.....						
	Taylor Village.....						
	Welsford.....						
	Westfield.....						
	St. John.....	1-3	60	4,000/2,300/550/220	110/220	129	9,313
	St. John.....	1-3	60	2,300/220/110/250	110	339	6,970
	St. John.....	1-3	60	110	115	2	150
	St. Leonard.....	1-3	60				20
	St. Martins.....	3	60	110/220	110	60	1,272
	St. Stephen.....	1-3	60	220	2,300	60	1,550
	Sussex.....	1-3	60	2,300	110	2	
	Van Buren, Me., U.S.A.....	1-3	60	220	110	16	967
	Woodstock.....	3	60			4	
	Woodstock.....	3	60				
	Woodstock.....					1,134	38,020
Total number of meters in the District of St. John.							
<i>Quebec—</i>	<i>Armagh.....</i>	<i>3</i>	<i>60</i>	<i></i>	<i>110</i>	<i>2</i>	<i>93</i>
Phil. Langlais.....	Bagotville.....	1-3	60	550/110	110	2	486
La Ville de Bagotville.....	Bate St. Paul.....	1-2	60	550	110		290
La Cie Electrique Bate St. Paul.....	Bergeronnes.....	1-3	60	550	110		23
Le Pouvour Electrique Lapointe Engr.....	Chandler.....	1-3	60	550	110		260
Bonaventure Pulp & Paper Company.....	Chicoutimi.....	3	60	550	110		
La Cie Electrique du Saguenay.....							
(Serving)——	Arvida.....					6	342
Chicoutimi County.....	City of Chicoutimi.....					68	2,648
	Laterriere.....					4	124
	Parish of Chicoutimi.....					3	143
	Parish of Ste. Anne.....						43
	Port Alfred.....					9	678
	Riviere du Moulin.....					5	181
	St. Alexis.....					4	352

ELECTRICITY INSPECTION

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APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Quebec—Continued</i>	Quebec.....	.....	.....	.....	.....	.....	.....
The Quebec Power Company.....	Beauport East.....	.....	.....	.....	.....	.....	.....
(Serving)—	Beaure.....	.....	.....	.....	.....	.....	.....
Quebec and District.....	Boischatel.....	.....	.....	.....	.....	.....	.....
	Cap Rouge.....	.....	.....	.....	.....	.....	.....
	Champigny.....	.....	.....	.....	.....	.....	.....
	Charlesbourg.....	.....	.....	.....	.....	.....	.....
	Charlesbourg West.....	.....	.....	.....	.....	.....	.....
	Chateau d'Eau.....	.....	.....	.....	.....	.....	.....
	Chateau Richer.....	.....	.....	.....	.....	.....	.....
	Courville.....	.....	.....	.....	.....	.....	.....
	Giffard.....	.....	.....	.....	.....	.....	.....
	L'Ange-Gardien.....	.....	.....	.....	.....	.....	.....
	Loretteville.....	.....	.....	.....	.....	.....	.....
	Montmorency Village.....	.....	.....	.....	.....	.....	.....
	Murray Bay.....	.....	.....	.....	.....	.....	.....
	Quebec.....	.....	.....	.....	.....	.....	.....
	Quebec West.....	.....	.....	.....	.....	.....	.....
	Riviere aux Chiens.....	.....	.....	.....	.....	.....	.....
	St. Anne de Beaupre.....	.....	.....	.....	.....	.....	.....
	St. Augustin.....	.....	.....	.....	.....	.....	.....
	St. Foy.....	.....	.....	.....	.....	.....	.....
	St. Gabriel.....	.....	.....	.....	.....	.....	.....
	St. Joachim.....	.....	.....	.....	.....	.....	.....
	St. Tite des Caps.....	.....	.....	.....	.....	.....	.....
	Sillery.....	.....	.....	.....	.....	96	4,293
	Breakeyville.....	.....	.....	.....	.....	.....	.....
	Charny.....	.....	.....	.....	.....	.....	.....
	Lauson.....	.....	.....	.....	.....	.....	.....
	Levis St. David.....	.....	.....	.....	.....	.....	.....
	St. Jean Chrysostome.....	.....	.....	.....	.....	.....	.....
	St. Louis de Fintendre.....	.....	.....	.....	.....	.....	.....
	St. Redempteur.....	.....	.....	.....	.....	.....	.....
	St. Romuald.....	.....	.....	.....	.....	85	2,689
	Armagh.....	.....	.....	.....	.....	.....	.....
Montmagny and District.....	Beaumont.....	.....	.....	.....	.....	.....	.....

La Cie de Laiterie St. Pierre	1-3	60	550/2200	110	3
La Cie d'Énergie Électrique	3	60	75	110	150
St. Francis Light & Power Company	3	60	220/550	115	15
(Serving)					336
St. Pierre					445
St. Simoon					92
Thetford Mines					37
Armstrong					51
Beaucroix					18
Black Lake					306
Bishop's C.					214
Coleraine					44
Courcelles					13
Danville					35
D'Israeli					50
Dosquet					62
Fontainebleau					13
Fortierville					90
Frampton					29
Garthby					61
Gould					18
Lambton					78
Laurier Station					36
Leclercville					15
Leeds					35
Lotbinière					522
Marbleton					183
Morissette					44
Parisville					201
Plessisville					93
Princeville					34
S. C. de Marie					75
Scotstown					21
Scott Junction					155
St. Adolphe					88
St. Agapit					48
St. Anges					44
St. Anselme					102
St. Antoine					50
St. Apollinaire					63
St. Benoit					132
St. Bernard					37
St. Come					93
St. Damien					94
St. Claire					73
St. Croix					7
St. Edouard					47
St. Germaine					284
St. Henedine					62
St. Julie					131
St. Marguerite					
St. Marguerite					
St. Marie					
St. Ephrem					
St. Evariste					

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Quebec—Concluded</i> <i>St. Francis Light & Power Company—Concluded</i> <i>(Serving)</i>	Thetford Mines.						90
	St. Ferdinand.					5	80
	St. Flavien.					4	33
	St. Frederic.					18	394
	St. Georges.						162
	St. Georges W.					3	44
	St. Gerard.					2	52
	St. Gervais.						21
	St. Gilles.					4	82
	St. Honore.					3	88
	St. Isidore.					14	336
	St. Joseph.					6	119
	St. Jean Desc.					2	43
	St. Lambert.						41
	St. Lazare.						47
	St. Malachie.					2	84
	St. Martin.					2	283
	St. Maurice—1.					4	318
	St. Maurice—2.					1	21
	St. Narcisse.					1	101
	St. Nicholas.						31
	St. Odilon.					1	35
	St. Patrice.						31
	St. Pierre.					4	108
	St. Prosper.						29
	St. Samuel.					2	79
	St. Sebastien.					31	31
	St. Theophile.						115
	St. Victor.					5	81
	St. Zacharie.					3	
	Thetford Mines.					41	1,803
	Tring Junction.						54
	Valley Junction.					10	222
	Weedon.						114
	Trois Pistoles.	1-3	60	550/220	110/220		104
						2,236	70,607
La Corporation Electrique de Temiscouata.							
Total number of meters in the District of Quebec.							

		1-3	60	550	220/110	4	198
The Sorel Light and Power Company, Ltd.	Boucherville...	1-3	60				18
Howard Smith Paper Mills, Ltd.	Crabtree Mills...	1-3	60		110		1,575
The City of Grand Mère.	Grand Mère...	1-3	60	110/220/250/550	110	35	2,291
Corporation of the City of Joliette.	Joliette...	1-3	60	230/550/2,550	110	44	1,378
The Brown Corporation.	La Tuque...	1-3	60		110	31	
Electric Service Corporation.	Montréal...	1-3	30/60	2,200/550/220	110		
(Serving)	Annville...						38
	Arthabaska...					1	241
	Becancour...					17	70
	Berthierville...					4	579
	Champlain...					28	430
	Crabtree Mills...					4	71
	Gentilly...					2	91
	Grand Mère...					1	
	Hervey Junction...					6	
	Joliette...						32
	La Baie du Febvre...					9	
	Lac a la Tortue...					8	114
	Lac aux Sables...						104
	La Gabelle...						75
	Lanoraie...						26
	Lanoraie Junction...					1	142
	Louiseville...					1	11
	Lavaltrie...					20	527
	Maskinonge...					8	93
	Nicolet...					6	154
	Odanak...					28	319
	Pierreville...						8
	Shawmigan Falls...					6	198
	Shawmigan Bay...					93	3,478
	St. Adelphe...					1	233
	St. Ambroise...					4	124
	St. Barthelemy...					2	133
	St. Charles de Mandé-ville...					4	164
	St. Cuthbert...						31
	St. Damien...					3	93
	St. Elizabeth...						31
	St. Emelie...					2	78
	St. Flore...						63
	St. Flore East...					1	136
	St. Marie Salomée...						120
	St. Melanie...						33
	St. Monique...					2	48
	St. Thecle...					8	43
	St. Etienne des Grès...						183
	St. Ursule...					3	66
	St. Felix de Valois...					6	60
	St. Francois du Lac...					1	190
	St. Gabriel de Brandon					13	53
							333

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Three Rivers—Continued</i> <i>Electric Service Corporation—Continued</i> (Serving)	Montreal.						106
	St. Georges.....					8	103
	St. Gregoire.....					2	68
	St. Jacques des Piles.....					1	74
	St. Jean de Matha.....					2	37
	St. Jean des Piles.....					3	86
	St. Justin.....					1	55
	St. Leon.....					5	102
	St. Leonard.....					1	63
	St. Michel des Saints.....					2	31
	St. Norbert.....						32
	St. Paul.....					2	56
	St. Severin.....					1	91
	St. Sulpice.....						69
	St. Thomas.....						44
	St. Timothee.....					17	368
	St. Tite.....					1	14
	St. Viateur.....					3	27
	St. Wenceslas.....						42
	Valmont.....					58	1,239
	Victoriaville.....					11	217
	Warwick.....					4	91
Shawinigan Water & Power Co. Sorel Light & Power Co., Ltd. (Serving)	Yamaska.....	3	30/60	60,000		100	
	Montreal.....	1-3	60	550	220/110	9	184
	Sorel.....					56	1,968
	Contrecoeur.....						
	Sorel.....					1	57
	St. Antoine.....					6	115
	St. Denis.....					1	55
	Ste. Anne de Sorel.....					1	25
	Ste. Theodosie.....					6	314
	St. Joseph de Sorel.....					8	154
North Shore Power Company. (Serving)	St. Ours.....					2	65
	St. Roch.....					2	129
	Varennes.....					10	137
	Vercheres.....			550	110/220		
	Three Rivers.....	1-3	30/60			5	251
	Banlieue Pointe du Lac.....						

Batiscan.....											6	176
Cap Madeleine.....											25	1,944
Champlain.....											1	189
Charette.....											1	78
Deschambault.....											3	102
Grondines.....											1	61
Jonction-Piles.....											1	10
Lachevrotiere.....											17	299
La Perade.....											9	1
Montauban.....											1	91
Notre Dame des Anges.....											2	88
Portneuf.....											7	277
St. Alban.....											2	86
St. Barnabe.....											1	98
St. Bazile.....											3	18
St. Boniface.....											1	99
St. Casimir.....											24	347
St. Angele.....											2	152
St. Genevieve.....											10	133
St. Elie de Caxton.....											1	40
St. Marguerite.....											1	31
St. Leonard.....											4	34
St. Louis de France.....											17	254
St. Marc.....											2	196
St. Maurice.....											5	111
St. Narcisse.....											10	403
St. Paulin.....											1	130
St. Prosper.....											3	32
St. Raymond.....											199	53
St. Severe.....											4	9,065
St. Stanislas.....											1	167
St. Thurbie.....											1,087	36,029
St. Ubald.....											4	46
Three Rivers.....											110/220	110
Yamachiche.....											110/220	2,200/110
											110/220	22
											110	101
											110	512
											110	26
											110	515
											110	1,065
											115	147
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APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Montreal—Continued</i>							
La Ville de Dorval	Dorval	3	60	2, 200/550/220	110	.....	593
Canadian Celanese Limited	Drummondville	3	60	4, 000/550	110/220	18	14
Selby Lake Inn Company	Dunham	1	60	.....	110	.....	15
La Corporation d'Aqueduc et d'Electricité	Ferme-Neuve	1	60	.....	110	.....	48
La Corporation de la Cité de Lachine	Lachine	3	60	1, 100/550/220	220/110	166	4, 245
La Corporation de la Ville de Lachine	Laprairie	1-3	60	550	110	20	500
La Corporation de la Ville de Magog	Magog	2	60	2, 300	110	.....	1, 287
La Corporation de la Ville de Megantic	Mansonville	3	60	550	110	.....	99
Mansonville Util. Ltd.	Megantic	3	60	550/440/220	110	2	758
La Corporation de la Ville de Megantic	Mont Laurier	1-3	60	550	110	.....	287
Laurentian Water & Power Co.	Montreal	1-3	60	550	110/220	.....	69
Canadian Industries, Ltd.	Montreal	3	60	2, 300/550	120	50	54
Garment Centre Capitol Inc.	Montreal	1-3	62½	.....	220/110	.....	60
Harbour Commissioners	Montreal	.....	60	.....	115/230	7, 844	8
Sherbrooke St. Realty Corporation	Montreal	1-2-3	60	115/70, 000	115/230	.....	231, 090
Montreal Light, Heat & Power Cons.	Montreal	1	63	230/4, 400	115/110	4	17
The Mount Royal Hotel Co., Ltd.	Montreal	3	60	110/220/550	110	.....	282
Yamaska Power Corporation	Montreal	1-3	60	550	110/220	.....	118
Beauharnois Electric Co., Ltd.	Athelstan	.....	.....	.....	.....	.....	16
(Serving)	Aubrey	.....	.....	.....	.....	.....	5
Barrington	Barrington	.....	.....	.....	.....	14	555
Beauharnois	Beauharnois	.....	.....	.....	.....	.....	29
Brosseau Station	Brosseau Station	.....	.....	.....	.....	8	224
Chateauguay Basin	Chateauguay Basin	.....	.....	.....	.....	8	108
Chateauguay Village	Chateauguay Village	.....	.....	.....	.....	8	144
Caughnawaga	Caughnawaga	.....	.....	.....	.....	4	130
De Lery	De Lery	.....	.....	.....	.....	1	167
Delson	Delson	.....	.....	.....	.....	.....	29
Dewittville	Dewittville	.....	.....	.....	.....	1	47
East Greenfield	East Greenfield	.....	.....	.....	.....	.....	28
Franklin Centre	Franklin Centre	.....	.....	.....	.....	.....	118
Hemmingford	Hemmingford	.....	.....	.....	.....	.....	172
Howick	Howick	.....	.....	.....	.....	14	451
Huntingdon	Huntingdon	.....	.....	.....	.....	.....	9
Laprairie Annex	Laprairie Annex	.....	.....	.....	.....	1	58
Longueuil	Longueuil	.....	.....	.....	.....	.....	25
Maple Grove	Maple Grove	.....	.....	.....	.....	.....	43
Melochville	Melochville	.....	.....	.....	.....	.....	.....

Electric Service Corporation.		(Serving)	
Nouveau Salaberry.....	60		
Ormstown.....	289		
Riverfield.....	20		9
Rockburn.....	13		
St. Antoine Abbe.....	21		
St. Cecile Village.....	109		8
St. Chrysostome.....	105		7
St. Clothilde.....	15		
St. Constant.....	129		2
St. Edouard.....	30		
St. Etienne.....	44		
St. Hubert.....	121		5
St. Isidore.....	114		3
St. Lambert Annex.....	67		
St. Louis de Gonzague.....	143		3
St. Mathieu.....	22		
St. Michel.....	75		
St. Philomene.....	96		1
St. Remi.....	254		12
St. Stanislas de Kostka.....	53		1
St. Timothee Parish.....	17		1
St. Timothee Village.....	95		
Springfield Park.....	24		
Trout River (includes St. Agnes de Dundee) Valleyfield.....	83		5
Montreal.....	1,932		62
Bois des Filions.....	110	110	110/2, 200
Canton Belanger.....	60		
Cap St. Martin.....			
Charlemagne.....			
Chicout.....			5
Grand Cote.....			
Grande Freniere.....			
Lachenaie.....			
Laval sur le Lac.....			
L'Assomption.....			
L'Epiphanie.....			
Mascouche.....			
Oka.....			15
Plage Laval.....			
Pointe aux Calumets.....			
Repentigny.....			2
Rosemere.....			
St. Anne des Plaines.....			1
St. Dorothee.....			1
St. Elzear.....			
St. Eustache.....			5
St. Eustache sur le Lac.....			6
St. Francois de Sales.....			2

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Montreal—Continued</i> Electric Service Corporation— <i>Concluded</i> (Serving)	Montreal						
	St. Janvier					1	72
	St. Joseph du Lac					3	76
	St. Martin					1	223
	St. Paul l'Ermite					31	88
	St. Therese					7	723
	St. Vincent de Paul					1	120
	Ste. Rose					1	462
	Terrebonne						75
	Terrebonne	1-3	60	550	110		
	Montreal					4	62
	Abbotsford					3	332
	Actonville					2	203
Southern Canada Power Co., Ltd. (Serving)	Ayer's Cliff					3	374
	Bedford					9	226
	Beebe					3	
	Belleil						41
	Brome						293
	Bromptonville						147
	Bury						44
	Canrobert						26
	Capelon						56
	Clarenceville						80
	Compton					3	247
	Cookshire					4	443
	Cowansville					26	1,194
	Drummondville					2	96
	Dunham					3	687
	East Angus					2	43
	East Farnham						55
	Eastman						22
	Eaton Corner						31
	Emileville					2	18
	Eustis					12	948
	Farnham					1	82
	Foster						74
	Frelighsburg						
	Granby					22	2,077
	Graniteville					6	26

Henryville.....	5	33
Huntingville.....	16	49
Iberville.....	3	33
Kingsbury.....	18	679
Knowlton.....	2	37
L'Acadie.....	1	344
Lennoxville.....	5	36
Libbytown.....	3	450
Magog.....	8	4
Marieville.....	1	404
Massawippi.....	1	23
Melbourne.....	1	105
Mont St. Hilaire.....	5	46
North Hatley.....	26	238
N.D. Stanbridge.....	23	26
Orford Lake.....	16	23
Pike River.....	271	16
Providence.....	25	25
Reedville.....	6	698
Richmond.....	8	364
Rock Island.....	1	129
Rougemont.....	2	107
Roxton Falls.....	2	105
Roxton Pond.....	4	124
Saweryville.....	8	92
South Durham.....	1	70
Stanbridge East.....	2	29
Stanbridge Sta.....	4	177
Stanstead.....	8	278
Scottsville.....	1	75
Sutton.....	3	57
Sutton Jet.....	3	62
Sweetsburg.....	1	65
St. Angele.....	1	70
St. Antoine.....	3	25
St. Barnabe.....	4	200
St. Blaise.....	2	247
St. Brigrde.....	3	46
St. Bruno.....	3	110
St. Cesaire.....	1	49
St. Charles.....	3	79
St. Cyrille.....	3	82
St. Damase.....	1	33
St. Dominique.....	3	47
St. Germain.....	1	75
St. Grégoire.....	47	120
St. Helene.....	1	2,709
St. Hilaire.....	47	
St. Hugues.....		
St. Hyacinthe.....		

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Montreal—Concluded</i>	<i>Montreal.</i>						
<i>Southern Canada Power Co., Ltd.—Concluded</i>	<i>St. Johns.</i>					42	2,508
<i>(Serving)</i>	<i>St. Joseph (Drummond).</i>						307
	<i>St. Joseph (St. Hyacinthe).</i>						137
	<i>St. Jules.</i>					1	58
	<i>St. Julie.</i>					1	74
	<i>St. Laiboire.</i>						90
	<i>St. Luc.</i>						18
	<i>St. Madeleine.</i>						89
	<i>St. Marc.</i>						46
	<i>St. Mathias.</i>						44
	<i>St. Paul.</i>						27
	<i>St. Pie.</i>					2	180
	<i>St. Pierre.</i>						70
	<i>St. Rosalie.</i>					2	136
	<i>St. Sebastien.</i>						62
	<i>St. Simon.</i>					1	56
	<i>Upper Melbourne.</i>					1	40
	<i>Upton.</i>					3	121
	<i>Venice.</i>						3
	<i>Warden.</i>						33
	<i>Waterloo.</i>					13	545
	<i>Waterville.</i>					9	175
	<i>Ways Mills.</i>						17
	<i>West Brome.</i>						27
	<i>West Sheffield.</i>					1	86
	<i>Wickham.</i>						31
<i>Gatineau Electric Light Co., Ltd.</i>	<i>Ottawa (Napierville Div.).</i>	3	60	220/550	110	4	404
	<i>Petit Lac Magog.</i>	1-3	60	110	110		11
<i>Mun, du Village du Petit Lac Magog.</i>	<i>Pointe Claire.</i>	1-2-3	60	2,200/550/220/110	110/220	12	1,464
<i>La Ville de Pointe-Claire.</i>	<i>Philipsburg.</i>	2-3	60	550	110		1,115
<i>Wallace Sandstone Quarries, Ltd.</i>	<i>Rapide de l'Original.</i>	1-3	60	550/440/220	110	2	287
<i>Laurentian Water & Power Co.</i>	<i>Ste. Agathe des Monts.</i>	2-3	60	220/550	110	102	648
<i>Ville Ste. Agathe du Monts.</i>	<i>Ste. Anne de Bellevue.</i>	1-3	60	2,200/550/220/110	110	30	710
<i>Corporation de Ste. Anne de Bellevue.</i>							

Mr. Fernando Couto.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
The Pierrefond Electric Co., Ltd.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
La Corporation de St. Hilaire.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Mde. Jos. Vanchesteing.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
J. G. Dunn.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
L'Usine électrique.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Village de Senneville.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
The City of Sherbrooke.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Sherbrooke Railway & Power Company.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
La Ville de Terrebonne.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
A. Meilleur.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
G. T. Cousinault.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Montreal Cottons, Limited.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
The City of Verdun.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
City of Westmount.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
La Corporation de la Ville de Windsor.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54																																														

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Lighting	Number of Meters	
				Power			Power	Lighting
Ottawa (in the Province of Ontario)—Concluded								
Canadian International Paper Co.	Hawkesbury.....	3	60	550		110	2	63
Beach Rural Electric System, Ltd.	Iroquois.....	1-3	60	220		110		356
Corporation of Iroquois.....	Iroquois.....	3	60	550/220/110		110/115	50	247
Kemptville Hydro Electric Comm.	Kemptville.....	1-3	60	220		110/220	6	346
Public Utilities Commission	Lanark.....	1	60	220		110	2	145
Lancaster Public Utilities.....	Lancaster.....	1-3	60	220		110		110
Police Trustees.....	Martintown.....	1	60	2,200		110/220	2	50
Hydro Electric Power Commission.....	Maxville.....		60	220		110/220		173
Judson Watchorn.....	Merrickville.....	1-3	60	600		110/220		8
The Rideau Power Company, Ltd.	Merrickville.....	1-3	60	110/220		110	6	215
Morrisburg Electric Light & Power Co.	Morrisburg.....	3	60	2,200/550		110		471
Gatineau Electric Light Company, Ltd.	Ottawa.....	1-3	60	550		110/220	1	80
(Serving)	Alfred.....			550		110/220	16	740
	Caledonia Springs.....			550		110/220	1	102
	Hawkesbury.....			6,600		110/220		74
	L'Orignal.....					110/220		271
	Rockland.....					110/220	2	25,622
	St. Eugene.....			550		107	577	13,187
	Vankleeck Hill.....	1-2-3	60	550		110	185	2,250
The Ottawa Electric Company.....	Ottawa.....	1-2-3	60	440/550		110	10	995
Ottawa Hydro Electric Commission.....	Ottawa.....	1-3	60	2,200		110/220	24	780
Pembroke Electric Light Co., Ltd.	Pembroke.....	1-3	60	2,200/550/220		110/220	20	1,220
Perth Hydro Electric System.....	Perth.....	1-3	60	220		110/220		64
The Water & Light Commission.....	Prescott.....	2-3	60	110/220/440/550		110/220		349
Renfrew Municipal Light Dept.	Renfrew.....	1	60	110/220		110/220	2	135
Richmond Hydro Electric Comm.	Richmond.....	3	60	440/220/500		110/220		1,858
Corporation of Town of Rockland.....	Rockland.....	3	60	220		110	43	
Hydro Electric System.....	Russell.....	1-3	60	26,400		110		
Smith's Falls Hydro Electric System.....	Smith's Falls.....							
Toronto.								
Hydro Electric Power Commission.....	Alexandria R.P.D.	1-3	60			110/220		37
(Serving)	Apple Hill R.P.D.	1	60			110/220		81
	Chesterville R.P.D.	1-3	60			110/220		250
	Dalhousie Lake Dis- trict.....	1	60			110/220		4
	Kemptville R.P.D.					110/220		
	Martintown R.P.D.	1-3	60	220/550		110/220	2	93

Hydro Electric System.....	1-3	60	220	110/220	1	150
Winchester Hydro Electric System.....	1-3	60	220	110/220	2	547
Maxville R.P.D.....	1-3	60	220	110/220	1	127
Nepean R.P.D.....	1-3	60	220	110/220	1	119
Prescott R.P.D.....	1-3	60	220	110/220	1	14
Smith's Falls R.P.D.....	1-3	60	220	110/220	1	70
Williamsburg R.P.D.....	1-3	60	220	110/220	3	332
Winchester.....	1-3	60	220	110	1	60, 765
Total number of meters in the District of Ottawa (in province of Ontario)						
<i>Ottawa (in the province of Quebec) —</i>						
Dominion Cartridge Company, Ltd.....	1-3	60	550	110/220	2	7
The James MacLaren Company, Ltd.....	1-3	60	550/220	110	2	30
G. E. Higginson.....	1-3	60	110	110	1	71
Pontiac Power & Development Co., Ltd.....	3	60	550	110	1	99
F. T. Cross.....	1-3	60	550	110	1	200
Gatineau Power Company.....	1-3	60	550	110	1	200
(Serving)						
Bell Falls.....	3	60	2,300		1	
Blanche Falls.....	3	60	6,600		1	
Bryson.....	3	60	6,600		1	
Chelsea Falls.....	3	25/60	6,600			
East Templeton.....	3	60	6,600			
Farmer Rapids.....	3	25/60	6,600		5	
High Falls.....	3	60	6,600		1	
Hull (No. 1).....	3	60	4,000		1	
Hull (No. 2).....	3	60	2,200		1	
Kipawa Plant.....	3	60	2,200		4	
Magnan Chute.....	3	60	6,600		3	
Maniwaki.....	3	60	6,600		3	
Paugan Falls.....	3	60	2,300		2	
Ripon.....	3	25	6,600		1	
St. Adele.....	3	60	2,300		2	
St. Jerome.....	3	60	2,300		1	
St. Jerome (Wilson Chute).....	3	60	6,600		1	
Table Falls.....	3	60	2,300		1	
Val Tetreau.....	3	60	11,000		1	
Ottawa.....	3	60	12,000		3	
Arundel.....	1-3	60	2,200/550	110		
Angers.....				110/220		45
Aylmer.....				110/220		43
Barbidge.....			550	110/220	3	760
Bouchette.....				110/220		29
Blue Sea.....			550	110/220	1	39
Belle Plage.....				110/220		10
Belle Riviere.....				110/220		61
Brownsburg.....			550	110/220	1	43
Campbell's Bay.....				110/220		364
Chelsea.....			550	110/220	2	157
Calumet Island.....				110/220		43
				110/220		35
<i>Gatineau Electric Light Co., Ltd.</i>						
(Serving)						

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Ottawa (in the Province of Quebec)—Continued</i> Gatineau Electric Light Co., Ltd.— <i>Continued</i> (Serving).....	Ottawa.....						
	Cascades.....				110/220		10
	Cheneville.....				110/220		34
	Conception.....				110/220		14
	Cote-le-Boucane.....				110/220		9
	Como.....			550	110/220	2	105
	Coteau Station.....				110/220		203
	Coteau Landing.....			550	110/220	1	69
	Coteau du Lac.....				110/220		72
	Carillon.....				110/220		43
	Cedars.....				110/220		122
	Choisy.....			550	110/220	1	18
	Cushing.....				110/220		166
	Deschenes.....						
	Dragon.....			550	110/220	1	39
	East Templeton.....			550	110/220	1	47
	Fassett.....			550	110/220		18
	Gatineau Point.....						
	Gatineau Division No. 4.....				110/220		343
	Greece Point.....				110/220		10
	Gracefield.....				110/220	3	86
	Grenville.....				110/220	1	115
	Hudson Heights.....				110/220		251
	Harrington.....				110/220		22
	Hudson.....				110/220		160
	Hull.....			550	110/220	49	3,386
	Huberdeau.....				110/220		41
	Ironsides.....				110/220	1	18
	Ivry.....				110/220		45
	Ile Perrot.....				110/220		105
	Isle Cadieux.....				110/220		18
	Kazubazua.....				110/220		22
	Kirks Ferry.....				110/220		21
	Kingsmere.....				110/220		21
	Lesage.....				110/220		13
	Lecordon.....				110/220		35
	Labelle.....				110/220		40

Lachapelle.....	110/220	22
Lacharite.....	110/220	5
L'Annonciation.....	110/220	108
Laurentides.....	550	344
Lacolle.....	550	144
Low.....	110/220	4
Lachute.....	110/220	28
Morin Heights.....	110/220	856
Maniwaki.....	110/220	59
Montcalm.....	110/220	260
Monterfi.....	110/220	24
Montebello.....	110/220	24
Mont Rolland.....	110/220	153
Nantel.....	110/220	146
New Glasgow.....	110/220	15
Papineauville.....	110/220	49
Plaisance.....	110/220	125
Friedmont.....	110/220	16
Pontie Fortune.....	110/220	17
Pontie-au-Chene.....	110/220	18
Portage.....	110/220	18
Ripon.....	110/220	9
Rawdon.....	110/220	37
Rigaud.....	550	180
Shawbridge.....	550	183
Sherrington.....	550	111
Stagnerville.....	110/220	40
Shawville.....	110/220	16
St. Agathe.....	110/220	191
St. Alexis.....	110/220	34
St. Adele.....	110/220	191
St. Augustin.....	110/220	141
St. Antoine.....	110/220	64
St. Andrews.....	110/220	45
St. Andre Avelin.....	110/220	133
St. Bernard.....	110/220	99
St. Benoit.....	110/220	5
St. Calixte.....	110/220	71
St. Clet.....	110/220	1
St. Canut.....	110/220	40
St. Esprit.....	110/220	94
St. Faustin.....	110/220	1
St. George.....	110/220	52
St. Hermas.....	110/220	210
St. Jacques.....	110/220	94
St. Jacques le Mineur de Nap.....	110/220	33
St. Julien.....	110/220	104
St. Jerome.....	110/220	348
St. Justine de Newton.....	110/220	15
St. Signori.....	110/220	79
	110/220	1,885
	110/220	45
	110/220	48

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Ottawa (in the Province of Quebec)—Concluded</i> Gatineau Electric Light Co., Ltd.— <i>Concluded</i> (Serving)	Ottawa.						
	St. Marguerite.				110/220		104
	St. Marie.				110/220		26
	St. Monique.				110/220	1	81
	St. Flacide.				110/220		88
	St. Polycarpe.			550	110/220	1	99
	St. Philippe d'Argenteuil.						
	St. Roch.				110/220	1	36
	St. Rose.				110/220	2	177
	St. Scholastique.				110/220		66
	St. Sophie.			550	110/220	1	162
	St. Saviour.				110/220		77
	St. Zotique.				110/220		43
	St. Philippe de Napierville.			550	110/220	1	47
	Thurso.			6,600.		1	
	Val David.				110/220		46
	Vaudreuil Village.			550	110/220	1	127
	Val Morin.				110/220	1	137
	Vaudreuil Stn.			550	110/220	1	253
	Point Fortune.	3	60		110	211	
National Hydro-Electric Co., Ltd. Municipality of Gatineau Point. The Belleville Hydro Electric System. Quyon Milling Company Corporation of Village of Thurso. Pembroke Electric Light Co., Ltd.	Gatineau Point.	1-3	60		110/220		38
	Quyon.	3	60	220/110	220/110	2	239
	Thurso.	3	60		110		38
	Waltham.	1-3	60				
						465	16,686
Total number of meters in District of Ottawa (in province of Quebec).							
<i>Belleville—</i> Bancroft Light and Power Co. Alexander Irwin. The Belleville Hydro Electric System. The Hydro Electric Power Comm. of Ont. The Electric Light Commission. Hydro Electric Power Comm. of Ont.	Bancroft.		D.C.		125/85		436
	Beaverton.	1-3	60	220	110	9	
	Belleville.	3	60	550/250/110	110/220	89	3,434
	Bloomfield.	1-3	60	110/220	110	8	168
	Bobcaygeon.	3	60	220/110	110		264
	Powmanville.	3	60	550/440/220	110/220	35	1,155

Hydro Electric Power Comm. of Ont.	Breehin.	1-3	60	220	110	4	69
The Public Utilities Commission.	Brighton.	1-3	60	220/550	110	10	468
The Water and Light Commission.	Brockville.	1-3	60	2,300/500/220	110	72	2,818
Sherman Roy Beltry.	Campbellford.	1-3	60	2,500/575/250	110	13	912
A. E. Bryant.	Cannington.	1-3	60	220	110/220	11	318
Hydro Electric Power Comm. of Ont.	Cobocouk.	D.C.	60	220/440/550/2,200	110	42	1,349
G. M. Peebles Estate.	Cobourg.	1	60	220	110	5	300
Deloro Smelting & Refining Co., Ltd.	Colborne.	1-3	60	220	110	5	40
Hydro Electric Power Comm. of Ont.	Deloro.	1-3	60	550	220/110	9	352
Board of Water, Light & Power Commissioners.	Deseronto.	1-3	60	2,300/550/220	115	1	320
Frankford Electric Light Co.	Fenelon Falls.	1-3	60	550	110	1	320
Gananoque Electric Light and Water Supply Co., Ltd.	Frankford.	1-3	60	550	110	58	234
George Anderson.	Gananoque.	3	60	550	115	35	957
Fowlds Company Ltd.	Haliburton.	3	60	220/110	110	2	143
Hydro Electric Power Commission.	Hastings.	2	60	550/220	110	15	320
Public Utilities Commission.	Havelock.	1-3	60	550	110/220	135	6,054
Alexander Irwin.	Kingston.	1-3	60	220	110	1	48
Lakefield Hydro Electric System.	Kirkfield.	1-3	60	550	110	8	366
Lindsay Hydro Electric System.	Lakefield.	1-3	60	220	110/220	71	2,130
Corporation of Madoc Village.	Lindsay.	1-3	60	550	110/220	10	345
Marmora Local Hydro Commission.	Madoc.	3	60	550/220	115	2	225
Hydro Electric Power Comm. of Ont.	Marmora.	1	60	220	110/220	3	210
Hydro Electric Power Comm. of Ont.	Millbrook.	1	60	110/220	115	29	981
J. P. Tett & Bro.	Napanee.	1-3	60	2,300/550/220	110	20	20
Hydro Electric Power Comm. of Ont.	Newboro.	3	60	2,300/550/220	115	2	185
Hydro Electric Power Comm. of Ont.	Newburgh.	1-3	60	550/220	115	2	146
Hydro Electric Power Comm. of Ont.	Newcastle.	3	60	220	110/220	3	280
J. H. Babcock.	Norwood.	1-3	60	550/220	110/220	3	280
Odessa.	Odessa.	100	60	220	110/220	4	50
Omenee Hydro Commission.	Omenee.	3	60	220	110/220	5	162
Hydro Electric Power Comm. of Ont.	Oro.	3	60	220	110/220	5	178
Public Utilities Commission.	Oshawa.	1-3	60	550	110/220	99	6,758
Peterborough Utilities Commission.	Peterborough.	1-3	60	2,400	115/230	161	6,268
Pictou Public Utilities.	Pictou.	1-3	60	220/550	110	47	1,108
Hydro Electric Power Comm. of Ont.	Port Hope.	1-3	60	220/550/2,200/4,000	110/220	60	1,504
Hydro Electric Power Comm.	Port Perry.	1-3	60	220/550	110/220	12	372
Stirling Municipal Electric System.	Stirling.	1-3	60	240	120/240	3	276
Sherman Roy Beltry.	Sunderland.	1-3	60	220	110/220	3	136
The Carscallen Mills.	Tamworth.	1-3	60	120	120	81	81
Hydro Electric Power Comm. of Ont.	Toronto.	D.C.	60	220	220/110	1	433
(Serving)	Belleville R.P.D.	1-3	60	220	220/110	1	21
	Bowmanville R.P.D.	1	60	220	110/220	2	264
	Brockville R.P.D.	1-3	60	220	220/110	2	50
	Campbellford R.P.D.	1	60	220	110/220	17	22
	Cannington No. 1 R.P.D.	1-3	60	220	110/220	2	22
	Cannington No. 2 R.P.D.	1-3	60	220	220/110	2	262
	Colborne R.P.D.	1-3	60	220	220/110	71	71
	Colborne R.P.D.	1	60	220/110	220/110	1	1
	Deseronto R.P.D.	1	60	220	220/110	1	1

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Belleville—Concluded</i> Hydro Electric Power Comm. of Ont.— <i>Concluded</i> (Serving).....	Toronto.						
	Kingston R.P.D.....	1-3	60	220	110/220	.....	194
	Lakefield R.P.D.....	1	60	.....	220/110	.....	1
	Mariposa R.P.D.....	1-3	60	550	110/220	1	223
	Millbrook R.P.D.....	1	60	.....	220/110	.....	57
	Napanee R.P.D.....	1-3	60	.....	220/110	.....	28
	Newcastle R.P.D.....	1-3	60	220	220/110	1	67
	Norwood R.P.D.....	1	60	.....	220/110	.....	30
	Oshawa R.P.D.....	1-3	60	220	220/110	4	693
	Peterboro R.P.D.....	1-3	60	220	220/110	5	820
	Pickering R.P.D.....	1-3	60	220	220/110	3	155
	Port Hope R.P.D.....	1	60	220	220/110	.....	2
	Port Perry R.P.D.....	1	60	.....	110/220	.....	116
	Stirling R.P.D.....	1	60	.....	220/110	.....	36
	Trenton R.P.D.....	1-3	60	.....	220/110	.....	36
	Uxbridge R.P.D.....	1	60	.....	110/220	.....	155
	Warkworth R.P.D.....	1	60	.....	220/110	.....	2
	Wellington R.P.D.....	1-3	60	110/220	110/220	.....	116
	Trenton.....	1-3	60	2,300/550/220/6,600	110/220	65	1,525
	Tweed.....	1-3	60	550/220	115/230	11	363
	Uxbridge.....	1-3	60	110/220	110	15	394
Hydro Electric Power Comm. of Ont. Hydro Electric Power Comm. of Ont. Uxbridge Utilities Commission Victoria Road Electric Association Warkworth Hydro Electric Comm. Public Utilities Commission The J. M. Stoness Estate Public Utilities Commission Sherman Roy Belfry.....	Victoria Road.....	.....	.....	.....	110	.....	21
	Warkworth.....	1	60	.....	110	.....	145
	Wellington.....	1-3	60	110/220	110/220	8	335
	Westport.....	1	60	220	110	.....	120
	Whitby.....	1-3	60	550/220	230/115	19	994
	Woodville.....	1-3	60	220	110/220	3	120
	Total number of meters in the District of Belleville.					1,240	49,870
<i>Toronto—</i> Police Village of Agincourt. Alliston Public Utilities Commission. Hydro Electric Commission Town of Aurora. D. C. Carruthers James Booth Police Village of Ayton.	Agincourt.....	1-3	25	550	110/220	2	155
	Alliston.....	1-3	60	220/550	110/220	14	406
	Arthur.....	3	60	220	110	5	217
	Aurora.....	1-3	25	550	110/220	13	729
	Avening.....	.....	D.C.	110	110	.....	62
	Ayton.....	1-3	60	2,300	110	.....	62
	Ayton.....	1-3	60	2,300	110	.....	62

ZANADIA POWER COMMISSION, OF ONT.									
Barrie Electric Light Dept.	Barrie	1-3	60	2, 200/220/110	110/220	10	659		
Beeton Hydro Electric Comm.	Beeton	1-2	60	220/110	220/110	34	2,100		
Bolton Hydro Electric System	Bolton	1-3	60	110/220/550	110/220	6	146		
Corporation of Bracebridge	Bracebridge	1-2	25	550	110	9	184		
Bradford Hydro Commission	Bradford	1-2	60	220/2, 200	110/220	1	148		
John McMurchy Estate	Brampton	3	60	550	110/220	7	247		
The Town of Brampton	Brampton	1-3	25	550	110/220	2			
The Knight Brothers Co., Ltd.	Burks Falls	1-3	25	550	110	52	1,534		
George W. Collins	Chatsworth	1-3	60		110	3	87		
Clarksburg Hydro Electric Light Com.	Clarksburg	1-3	60	220	110	1	94		
Clifford Hydro Electric System	Clifford	1-3	60	110/220	110		104		
The Municipality of Coldwater	Coldwater	1	25	220			127		
Public Utilities Commission	Collingwood	2-3	60	200	110/220				
Cookstown Hydro System	Cookstown	1-3	60		110	3	196		
Toronto Twp. Hydro Electric Comm.	Cooksville	1-3	60	220	120	60	1,624		
Creemore Hydro Electric System	Creemore	1-3	25	220/550	110	3	130		
Canadian National Railways	Depot Harbour	1	60	220/110	110	17	1,747		
Drayton Hydro Commission	Drayton	1-3	60	550	220/110	5	216		
Dundalk Hydro System	Dundalk	1-3	25	550	110	5	51		
Durham Hydro Electric System	Durham	1-3	60	220	110	3	213		
Canadian National Electric Railway	Eldorado Park	1-3	60	220/550	110	10	230		
Andrew Beardsall	Elmvale	1-3	25	400	110		464		
The Hydro Electric Commission	Elora	1-2-3	60	220	110	10	203		
	Elora	1-3	25	550	110/220	6	373		
Caledon Electric Co., Ltd.	Erin	1-3	60	550	110	7	639		
(Serving)	Alton								
	Belfountain								
	Caledon								
	Caledon East								
	Cataraqui								
	Cheltenham								
	Erin								
	Forks of Credit								
	Hillsburg								
	Inglewood								
	Melville								
	Victoria								
Fergus Public Utilities Commission	Fergus	3	25	550	110/220	15	686		
Flesherton Village	Flesherton	1	60	550	110		158		
Grand Valley Hydro Electric System	Grand Valley	1-3	60	110/220/550	110	2	174		
Gravenhurst Light & Water Comm.	Gravenhurst	1-2-3	60	220/110	110	12	476		
Board of Light & Heat Commissioners	Guelph	3	25	13, 200/575	2, 300/230/				
Public Utilities Commission	Hanover				115	131	5,593		
Hydro Elec. Com. of Town of Harrison	Harrison	1-3	60	110/220/550	110/220	29	1,772		
Holstein Hydro Commission	Holstein	1-3	25	550	110/220	12	396		
Public Utilities Commission	Huntsville				110		67		
Etobicoke Twp. Hydro Elec. Com.	Islington	1-3	60	220/550	110	7	683		
Canada Wire & Cable Co., Ltd.	Leaside	1-3	25	550	110/220	15	3,850		
	Leaside	3	25		110/220		102		

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Toronto—Continued</i>							
Markdale Hydro System.....	Markdale.....	3	60	220	220/110	9	264
Markham Hydro Electric System.....	Markham.....	1-3	25	220/550	110	10	310
Public Utilities Commission.....	Meaford.....	1-3	60	230	110	16	744
Public Utilities Commission.....	Midland.....	1-3	60	2,200/220/110	220/110	62	1,796
Public Utilities Commission.....	Mimico.....	1-3	25	550	115/230	14	1,700
Public Utilities Commission.....	Moorefield.....	1-3	25	550	110	4	76
Hydro Electric Power Commission.....	Mt. Forest.....	1-3	60	220	110/220	10	512
Mt. Forest Water & Light Commission.....	Neustadt.....	1-3	60	550	110/220	2	118
Neustadt Hydro Electric Commission.....	Newmarket.....	1-3	25	550	110/220	9	1,100
Town of Newmarket.....	New Toronto.....	1-3	25	550	110/120	40	1,468
New Toronto Public Utilities Commission.....	Nobel.....	1-3	60	550/220	110/220	2	777
Canadian Explosives Division.....	Orangeville.....	3	60	220/440/550/2,200	110	13	2,130
Orangeville Hydro Commission.....	Orillia.....	1-3	60	550	110/220	34	3,473
Orillia Water, Light & Power Comm.....	Owen Sound.....	1-3	60	550	110/220	121	3,824
Public Utilities Commission.....	Parry Sound.....	1-3	60	2,300	110/220	12	635
Public Utilities Commission.....	Penetanguishene.....	1-3	60	220/550/2,200	110/220	26	479
Penetanguishene Water & Light Com.....	Port Credit.....	1-3	25	220/550	110	5	204
Port Credit Hydro Electric System.....	Port McNicoll.....	3	60	.....	110	.....	37
Port McNicoll Hydro Electric Comm.....	Preeceville.....	1	60	.....	110	.....	414
Frank A. Aussen.....	Richmond Hill.....	1-3	25	550	220/110	13	168
Corp'n. of Village of Richmond Hill.....	Rockwood.....	1-3	25	550	110/220	.....	18
Rockwood Hydro Electric.....	Rockwood Bridge.....	3	60	.....	110	.....	381
Mickle Dymont & Son.....	Shelburne.....	1-3	60	220/550	110	9	12
Shelburne Hydro Commission.....	South River.....	1-3	60	550	110/220	.....	283
South River Electric Co.....	Stayner.....	1-3	60	220	220/110	10	385
Stayner Hydro Electric Commission.....	Streetsville.....	1-2-3	25	550	110	5	197
Corp'n. of Village of Streetsville.....	Streetsville.....	3	60	110/220	110	.....	421
Corporation of Streetsville.....	Sutton West.....	3	25	550	2,200/4,000	4	225
Sutton Hydro Electric System.....	Sutton West.....	1-3	60	220	110	.....	64
R. A. Lowe.....	Thornbury.....	3	60	4,000	110	.....	6
Police Village.....	Thornbury.....	3	25 & D.C.	250 D.C.	220 A.C.	1	40
Canada Velling Company, Ltd.....	Toronto.....	1-3	25	550/220	115/230	7	66
Canadian National Exhibition Association.....	Toronto.....	.....	D.C.	.....	110/220	.....	15
Child's Company.....	Toronto.....	.....	D.C.	.....	110/220	.....	7,969
Flett-Loewnd Syndicate, Ltd.....	Toronto.....	1-3	25	250	.....	29	.....
Hydro Elec. Com. Twp. of East York.....	Toronto.....	.....	.....	550	.....	.....	.....
Hydro Electric Power Com. Systems.....	Toronto— Central Ontario.....	3	60	44,000/11,000/4,160/ 2,400	.....	63	16

ELECTRICITY INSPECTION

City or Town	Capacity (H.P.)	Year	Cost (\$)	Notes
Madawaska	3	1903	30	
Niagara	3	1903	1,065	
Nipissing	3	1903	162	
Ottawa	3	1903		
Patricia	3	1903		
Rideau	3	1903		
St. Lawrence	3	1903		
Thunder Bay	3	1903		
Wanapitae	3	1903		
Toronto—				
Alliston R.P.D.	1	1903		
Arthur R.P.D.	1	1903		
Barrie R.P.D.	1	1903		
Beaumaris R.P.D.	1	1903		
Beeton R.P.D.	1	1903		
Bond Lake R.P.D.	1-3	1903		
Bradford R.P.D.	1	1903		
Brampton R.P.D.	1-2-3	1903		
Bucksin R.P.D.	1	1903		
Chatsworth R.P.D.	1	1903		
Elmvale R.P.D.	1	1903		
Elora R.P.D.	1-3	1903		
Flesherton R.P.D.	1-3	1903		
Georgina R.P.D.	1	1903		
Gravenhurst R.P.D.	1	1903		
Guelph R.P.D.	1-3	1903		
Harrison R.P.D.	1-3	1903		
Hawkestone R.P.D.	1	1903		
Holstein R.P.D.	1	1903		
Horning's Mills R.P.D.	1-3	1903		
Innisfil R.P.D.	1	1903		
Keswick R.P.D.	1-3	1903		
Markdale R.P.D.	1	1903		
Markham R.P.D.	1-3	1903		
Meaford R.P.D.	1	1903		
Medonte R.P.D.	1	1903		
Midland R.P.D.	1	1903		
Neustadt R.P.D.	1	1903		
Newmarket R.P.D.	1-3	1903		
Nottawasaga R.P.D.	1-3	1903		
Orangeville R.P.D.	1	1903		
Scarboro R.P.D.	1-3	1903		
Shelburne R.P.D.	1	1903		

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Toronto—Concluded</i>							
Hydro Electric Power Comm. of Ont.— <i>Concluded</i> (Serving)	Toronto.	1	60	220	110/220	1	128
	Sparrow Lake R.P.D.	1-3	60	110/220	110/220	8	392
	Stayner R.P.D.	1-2-3	25	550/220	220/110	8	333
	Streetsville R.P.D.	1-3	60	110/220	110/220	1	96
	Tara R.P.D.	1	60	220	220/110	1	1
	Thornton R.P.D.	1-3	60	220	220/110	1	809
	Utterson R.P.D.	1-3	25	550/220	220/110	14	31
	Woodbridge R.P.D.	1-3	D.C.	110/220	110/220	4	4,274
	Toronto.	1-3	25	550	110/220	27	170,389
	Toronto.	1-3	25, 62½ & D.C.	2,300/550/115/230	115/230	5,338	2
Monarch Supply Co., Ltd.	Toronto.	1-3	25	550	110/230	6	163
Scarborough Hydro Electric System.	Toronto.	1-3	25	110/220	110/220	6	178
Toronto Electric Commissioners.	Toronto.	1-3	60	220	110	21	138
Toronto Terminals Railway Company.	Toronto.	1	60	220	110/220	3	1,293
Corp. of Village of Tottenham.	Tottenham.	1-3	25	550	110/220	28	2,029
Light & Power Committee.	Victoria Harbour.	1-3	25	550	220/110	25	260
Hydro Electric Commission.	Wanbaushene.	1-3	25	550	110/220	6	239,702
Weston Water, Power & Light Comm.	Weston.	1-3	25	550	110/220	6	539
North York Hydro Electric Comm.	Willowdale.	1	60	220	110/220	19	319
The Village of Windermere.	Windermere.	1	25	550	110/220	4	239
The Village of Windermere.	Woodbridge.	1-3	25	550	110/220	2	148
Woodbridge Hydro Elec. Com.	Woodbridge.	1-3	25	550	110/220	2	70
Total number of meters in the district of Toronto.						7,255	473
<i>Hamilton—</i>							
Acton Public Utilities Commission.	Acton.	1-3	25	550-220	110/220	19	6,810
Hydro Electric System, Iwp. of Ancaster.	Ancaster.	1-2-3	25	550	110/220	4	800
The Village of Ayr.	Ayr.	3	25	4,400/550	110	2	1,598
The Police Village of Baden.	Baden.	1-3	25	220	110/220	2	200
Barton Hydro System.	Barton.	1-3	66½	220	110	6	111
Hamilton Cataract Power, Light & Traction Co., Ltd.	Beamsville.	1-3	25	4,000/550/220	220/110	104	218
Brantford Hydro Electric System.	Brantford.	1-3	25	550	110/220	3	2
Twp. of Brantford Hydro Electric System.	Brantford.	1-3	60½	220	110	122	6
Western Counties Electric Co., Ltd.	Brantford.	1-3	25	550/220	110/220	3	1
Bridgeport Hydro Electric System.	Bridgeport.	1-3	66½	220	110	1	1
Bronte Light & Power Com.	Bronte.	1	66½	220	110	4	218
Trailblaze Voted Area No. 2.	Brantford.	1-3	25	550/200	110	22	2,182
Brantford Hydro Electric System.	Burlington.	1-2-3	66½	220	110	22	2,182
Hamilton Cataract Power, Light & Traction Co., Ltd.	Burlington.	1-2-3	66½	220	110	22	2,182

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Campbellville Hydro Electric Comm.	25	550/220	110	10	333
Cayuga Hydro Electric System.	1-3		110/220		45
Chippawa Hydro Electric Comm.	1-3	550	110/220	3	129
Deilli Light & Power Company, Ltd.	1-3	2,200	220/110	1	311
The Dundas Electric Company, Ltd.	60	220/2,200	110	17	223
Dundas Public Utilities Comm.	66½	220	110	5	70
Dunville Public Utilities Comm.	1-3	550/220	110/220	48	1,360
Elmira Public Utilities Comm.	1-3	550	110/220	27	842
Fonthill Hydro Electric Comm.	1-3	550	220/110	25	700
Public Utilities Commission of Galt.	2-3	220	110	3	229
Hydro Electric System.	1-3	550	110	126	3,914
Hamilton Cataract Power, Light & Traction Co., Ltd.	2-3	220/550	110/220	23	730
Hagersville Hydro System.	1-3	220	110	28	893
Hamilton Cataract Power, Light & Traction Co., Ltd.	1-3	220	110	14	394
Hamilton Electric Light & Power Co., Ltd.	66½	4,000/550	110	477	60
Hamilton Hydro Electric System.	66½	220	110		5,471
Hesperer Hydro Electric Comm.	1-3	220/550/2,200/13,200	110/220	829	34,430
Humberstone Hydro System.	1-3	110/220/550	110	21	867
Jarvis.	25	4,000/220	110/220	10	516
Kitchener.	25	550	110/220	4	123
Lynden.	1-3	2,200/550		240	7,379
Merrittton.	25	220	110	1	90
Milton.	1-3	2,200/550/220	220/110	9	675
New Hamburg.	1-3	2,200/550	110/220	21	555
Niagara Falls.	1-3	2,200/550/220/110	110/220	11	428
Niagara Falls.	25	220/2,200/4,400/	110	64	4,191
Niagara Falls.	1-3	11,000/40,000			
Niagara Hydro Electric System.	1-3	220/550	110/220	94	4,398
Oakville Water & Light Commission.	1-3	550	110/220	12	1,450
Trafalgar Public Utilities.	1-3	220/2,200	110	9	508
Paris Hydro Electric & Water Comm.	60	2,200	110/220	31	1,059
Port Colborne Hydro Electric Comm.	1-3	550	110/220	12	220
Port Dalhousie Public Utilities Comm.	1-3	550/220	110	23	1,213
Port Dover Hydro Electric System.	1-3	220/550	110/220	15	1,383
Port Rowan Hydro System.	25	220/550	110/220	9	612
Preston Light & Water Commission.	1-3	220/550	110/220	11	466
Queenston Hydro Electric System.					
Simcoe Hydro Electric System.	1-3	550	110/220	1	116
Municipal Light & Power Comm.	1-3	110/220	110/220	52	1,719
Lincoln Electric Light & Power Co., Ltd.	1-3	550/220	110/220	1	65
Public Utilities Comm. of St. Catharines.	60	220/550	110/220	35	1,115
St. Catharines.	66½	220	110/220	7	198
St. George Hydro Electric System.	1-3	220	110	105	1,418
St. Jacobs Hydro Electric Comm.	1-3	2,200/550/220	112	132	6,339
Thorold Public Utilities Commission.	1-3	550	110/220	3	169
Hydro Electric Power Commission of Ontario.	1-3	550	110	6	140
(Serving)	3	230/550	115	11	1,378
Acton R.P.D.	1-3	110/220	110/220		5
Ayr R.P.D.	1-3	550	110/220		39
Baden R.P.D.	1-3	550/220	110/220	118	136
Beamsville R.P.D.	1-3	4,400/2,200	110/220	19	731

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Hamilton—Concluded</i>	<i>Toronto.</i>						
Hydro Electric Power Comm. of Ont.— <i>Concluded</i>	Brant R.P.D.	1-3	25	550	110/220	2	375
(Serving).....	Burford R.P.D.	1-3	25	550	110/220	2	116
	Caledonia R.P.D.	1-3	25	220	110/220	2	239
	Chippawa R.P.D.	1-3	25	220	110	3	113
	Dundas R.P.D.	1-3	25	550/220	110/220	9	468
	Elmira R.P.D.	1-3	25	550/220	110/220	12	22
	Galt R.P.D.	1-3	25	550/220	110/220	39	168
	Georgetown R.P.D.	1-2-3	25	550/220	220/110	137	197
	Grantham R.P.D.	1-3	25	220	112	3	490
	Haldimand R.P.D.	1	25	220	110/220	139	139
	Jordan R.P.D.	1-3	25	220	112	222	222
	Lynden R.P.D.	1-3	25	550/220	110/220	177	177
	Milton R.P.D.	1-3	25	220	110	3	230
	Niagara R.P.D.	1-3	25	550/220	110	6	231
	Preston R.P.D.	1-3	25	550/220	110/220	211	477
	Saltfleet R.P.D.	1-3	25	220	110/220	3	900
	Simcoe R.P.D.	1-3	25	220	110/220	2	190
	Stamford R.P.D.	1-3	25	220	110/220	1	284
	St. Jacobs R.P.D.	1-3	25	220	110	1	179
	Walsingham R.P.D.	1-3	25	550/220	110/220	42	132
	Waterdown R.P.D.	1-3	25	220	110/220	10	247
	Waterford R.P.D.	1-3	25	220/550	110/220	2	140
	Welland R.P.D.	1-3	25	550/220	110/220	28	1,895
	Waterdown.....	3	25	110/220/550	110/220	5	276
Waterdown Hydro Electric System.....	Waterford.....	3	25	220/550	110/220	11	360
Waterford Hydro Commission.....	Waterloo.....	1-3	25	2,200/550	110/220	70	1,919
Public Utilities Commission.....	Welland.....	1-3	66 $\frac{2}{3}$	575/220	110/220	8	2,579
Hamilton Cataract Light, Power & Traction Company.....	Welland.....	1-3	25	110/220/550/2,200	110/220	83	2,146
Welland Hydro Electric System.....	Wellesley.....	1-3	25	550	110/220	4	116,559
Wellesley Light & Power Comm.....						3,581	
Total number of meters in the district of Hamilton.							
<i>London—</i>	Ailsa Craig.....	1-3	25	550	110	3	160
Hydro Electric Commission.....	Alvinston.....	1-3	25	550	110	2	200
Alvinston Hydro Electric System.....	Amherstburg.....	1-2-3	25	110/220/550/4,000	110	18	700
Amherstburg Hydro Electric System.....	Arkona.....	1-3	25	220/550	110/220	3	136
Arkona Hydro Electric Commission.....							

Belle River Electric System.....	1-3	25	110/220	550	14	660
Blenheim Public Utilities.....	1-3	25	110/220	4,000	4	136
Blyth.....	1-3	25	110/220	550	4	209
Bothwell Hydro Electric System.....	1-3	25	110/220	550/220	9	587
Brigden Hydro Electric System.....	1-3	25	110/220	550/220	5	183
Brussels Hydro Electric System.....	1-3	25	110	550	5	206
Burgessville.....	1-2-3	25	110	550	6	146
Cargill Limited.....	1-3	25	100/200	500	1	241
Chatham Public Utilities Comm.....	1-3	25	110/220	550	2	73
Chesley Public Utilities Comm.....	1-3	25 & 60	115	550/220	137	4,535
Clinton Public Utilities Comm.....	1-3	60	110	550/220	20	502
Comber Hydro Electric Comm.....	1-3	25	110/220	550	14	615
Cottam Hydro Electric System.....	1-3	25	110/220	550	2	143
Courtright Hydro Electric System.....	1-3	25	110/220	550	2	128
Dashwood Hydro Electric System.....	1-3	25	110	220	1	90
J. S. Pincombe.....	1-3	25	110/220	550	1	102
Dorchester Hydro Electric System.....	1	25	110	220	1	69
Dresden Hydro Electric System.....	1-3	25	110	220	1	161
Drumbo Hydro Electric System.....	1-3	25	220/110	2,200/550	13	472
Dublin Public Utilities Commission.....	1-3	25	110/220	550/220	2	105
Dutton Hydro System.....	1-3	25	110	550	3	61
Elmwood Hydro Electric System.....	1-3	25	110/220	550	6	275
Embro Hydro Electric System.....	1-3	60	110	220	1	69
Erieau Hydro Electric System.....	1-3	25	110/220	2,000	4	130
Essex.....	1-3	25	110/220	550/220	2	130
Exeter.....	1-3	25	110	550/220	17	532
Forest Public Utilities Commission.....	1-3	25	110/220/550	110/220/550	8	548
Formosa Electric Light Co., Ltd.....	1	60	110	220	42	571
Glencoe Hydro Commission.....	1-3	25	220/110	550	21	571
The Water & Light Commission.....	2-3	60	110	220	1	50
Granton Hydro Electric System.....	1-3	25	110	550	5	279
Harrow Hydro Electric System.....	1-3	25	110/220	550	18	1,381
Hensall Hydro Electric Comm.....	1-3	25	110/220	110/220	1	126
Highgate Hydro Electric System.....	1-3	25	110	220/110	4	284
Ingersoll Public Utilities Comm.....	1-3	25	110/220	550	14	220
Electric Light & Water Commission.....	1	25	110/220	110/220	130	1,565
Kingsville Public Utilities Comm.....	1-2-3	25	2,200/550/220	2,200/550/220	40	1,565
Lambeth Hydro Electric System.....	1-3	60	110/220	220/550	10	687
La Salle Public Utilities Commission.....	1-3	25	110/220	220	5	847
La Salle Hydro Electric System.....	1-3	25	220/110	550	1	124
Hydro Elec. Comm. of Town of Leamington.....	1-3	25	110	220	1	228
The Public Utilities Commission.....	1-3	25	110/220	550/220	76	1,441
Cities Heating Company Limited.....	1-3	25	110/220	550	23	837
London Twp. Voted Area.....	1-3	25	110	500	7	351
Public Utilities Commission.....	1-3	25	110/220	220/550	4	351
London.....	1-3	25	110/220	550	525	19,558
Lucan Hydro Electric Commission.....	1-3	25	2,300/4,000/110/220	550	8	212
Lucknow Hydro Electric System.....	1-3	60	110	550	6	324
Merlin Hydro Electric System.....	1-3	25	110/220	550/220	4	143

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>London—Continued</i>							
Mildmay Electric Light Co., Ltd.	Mildmay.....	1-3	60	2, 200	110/220	2	165
Milverton Hydro Electric System	Milverton.....	1-3	25	550	110/220	6	284
Public Utilities Commission	Mitchell.....	1-3	25	550	110	29	551
Mt. Brydges Hydro System	Mt. Brydges.....	1-3	25	530	110	2	151
Hydro Electric Power Commission	Newbury.....	1-3	25	220	110/220	2	82
Public Utilities Commission	Norwich.....	1-3	25	550/220	110/220	9	443
Oil Springs Hydro Commission	Oil Springs.....	1-3	25	550/220	110/220	35	99
Village of Otterville	Otterville.....	1-3	25	550	110/220	1	154
Paisley Hydro Electric Commission	Paisley.....	1-3	60	220	110/220	4	211
Palmerston Public Utilities Comm.	Palmerston.....	1-3	25	550	110/220	4	502
Park Hill Hydro Electric System	Park Hill.....	1-3	25	550	110/220	4	291
Petrolia Hydro Electric System	Petrolia.....	1-3	25	220/550	110/220	59	866
Village of Plattsville	Plattsville.....	1-3	25	550	110/220	2	109
Port Stanley Hydro Electric Dept.	Port Stanley.....	1-3	25	220	110/220	10	606
Princeton Hydro Electric Comm.	Princeton.....	1-3	25	500	110/220	1	94
Public Utilities Commission	Ridgetown.....	1-3	25	550	100/200	21	668
Ripley Hydro Electric System	Ripley.....	1-3	60	550	110/220	5	138
Rodney Hydro Electric System	Rodney.....	1-3	25	555	110/220	29	264
Sandwich Hydro Electric System	Sandwich.....	1-3	25	220/550	110/220	29	3, 014
Point Edward Hydro Electric System	Sarnia.....	1-3	25	2, 200/550/440/220	115	12	340
Sarnia Hydro Electric System	Sarnia.....	1-3	25	2, 200/550/440/220	115	64	5, 140
Public Utility Commission	Seaford.....	1-3	25	2, 200/550/220/110	110	13	620
The Hydro Commission	Springfield.....	1-3	25	550	110	2	127
Public Utilities Commission	Stratford.....	1-3	25	550	220/110	109	4, 878
Public Utilities Commission	St. Mary's.....	1-3	25	550/220	220/110	22	949
Public Utilities Commission	St. Thomas.....	1-3	25	550	110/220	35	1, 206
Hydro Electric Com. of St. Thomas	Tara.....	1-3	60	220	110	90	4, 751
Tavistock Public Utility Commission	Tavistock.....	1-3	25	550	110/220	2	157
Teeswater Hydro Commission	Teeswater.....	1-3	25	550	110/220	6	319
Thamesford Hydro Electric System	Thamesford.....	1-3	60	110/220/550	220	280	280
Public Utilities Commission	Thamesville.....	1-3	25	550	110	7	144
Thedford Hydro Electric Commission	Thedford.....	1-3	25	550	110/220	8	180
Thornedale Hydro Electric System	Thornedale.....	1-3	25	220	2/0/110	3	166
Tilbury Hydro Electric System	Tilbury.....	1-3	25	550/220	110	11	80
Public Utilities Commission	Tilsonburg.....	1-3	25	550/220	110/220	27	535
Hydro Electric Power Com. of Ont. (Serving)	Toronto.....	1	25	550/220	220/110	27	1, 030
	Atwinston R.P.D.	1	25		110/220		4

Amherstburg R.P.D.	1-3	25	110/220	1	479
Aylmer R.P.D.	1-2-3	25	110/220	3	456
Belle River R.P.D.	1-3	25	110/220	3	282
Blenheim R.P.D.	1-2-3	25	110/220	5	236
Bothwell R.P.D.	1-3	25	110/220	7	92
Brigden R.P.D.	1	25	110/220		69
Chatham R.P.D.	1-3	25	110/220	5	642
Clinton R.P.D.	1-3	25	110/220	76	158
Deleware R.P.D.	1-3	25	110	4	534
Dorchester R.P.D.	1-3	25	110	1	494
Dresden R.P.D.	1-3	25	110/220		14
Drumbo R.P.D.	1-3	25	110/220		174
Dutton R.P.D.	1-3	25	110/220	2	117
Essex R.P.D.	1-3	25	110/220	2	332
Exeter R.P.D.	1-3	25	110	2	465
Forest R.P.D.	1	25	110/220		29
Goderich R.P.D.	1-3	25	110/220	7	33
Harrow R.P.D.	1	25	110/220		455
Ingersoll R.P.D.	1-2-3	25	110/220	6	447
Kingsville R.P.D.	1-3	25	110/220	4	1,032
Listowel R.P.D.	1-3	25	110/220	65	97
London R.P.D.	1-3	25	110/220	10	1,667
Lucan R.P.D.	1	25	110		1,103
Lucknow R.P.D.	1-3	60	110/220	1	2
Merlin R.P.D.	1-3	25	110/220	1	140
Milverton R.P.D.	1-3	25	110/220	33	41
Mitchell R.P.D.	1-3	25	110/220	95	155
Norwich R.P.D.	1-2-3	25	110/220	4	372
Oil Springs R.P.D.	1	25	500		82
Palmerston R.P.D.	1-3	25	110/220	10	4
Petrolia R.P.D.	1	25	220/550	3	18
Ridgetown R.P.D.	1-3	25	220	1	577
Ripley R.P.D.	1-3	25	110/220	1	2
Sandwich R.P.D.	1-3	25	110/220	1	885
Sarnia R.P.D.	1	25	4,000	3	1,956
Seaford R.P.D.	1-3	25	220	1	96
Stratford R.P.D.	1-3	25	110/220	25	117
Strathroy R.P.D.	1	25	220/550	77	94
St. Mary's R.P.D.	1-3	25	110		95
St. Thomas R.P.D.	1-2-3	25	220/550	153	904
Tavistock R.P.D.	1-3	25	220/550	5	78
Thamesville R.P.D.	1-3	25	220/550	120	127
Tilbury R.P.D.	1-2	25	220	1	108
Tillsonburg R.P.D.	1-3	25	4,000	2	450
Walkerton Quarry R.P.D.	1-2-3	25	110/220	35	
Wallaceburg R.P.D.	1	60	110/220		5
Walton R.P.D.	1-3	25	110/220		378
Watford R.P.D.	31-3	25	220/550	5	131
Woodstock R.P.D.	1	25	220/550	39	20
Wroxeter R.P.D.	1-2-3	25	220/550	8	562
	1	60	110/220		108

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>London—Concluded</i>							
Walkerton Electric Light & Power Co., Ltd.	Walkerton.....	1-3	60	220/550	110	18	675
Saugeen Electric Light & Power Co., Ltd.	Walkerton.....	1-3	60	220/550	110	18	1,202
Walkerville Hydro Electric System.	Walkerville.....	1-3	25	220/550	110	102	7,979
Wallaceburg Hydro Electric System.	Wallaceburg.....	1-3	25	220/550	220/110	28	1,204
Hydro Electric Power Commission.	Wardsville.....	1	25	.....	220	.....	75
Public Utilities Commission.....	Watford.....	1-3	25	220/550	110	5	349
Wheatley Hydro Electric System.	Wheatley.....	1-3	25	550	110/220	3	129
West Lorne Hydro Department.	West Lorne.....	1-3	25	220/100	100	5	251
Wingham Utilities Commission.....	Wingham.....	1-3	60	550	110/220	14	739
Windsor Hydro Electric System.....	Windsor.....	1-3	25	575/230	115/230	389	17,910
Woodstock Public Utilities Comm.	Woodstock.....	1-3	25	220/550/2,200	110	79	3,192
Wyoming Hydro System.....	Wyoming.....	1-3	25	220/550	110/220	1	163
Zurich Hydro Electric System.....	Zurich.....	1	25	.....	110	4	175
Total number of meters in the district of London—						3,217	121,414
<i>Sudbury—</i>							
The Municipal Service Corporation, Ltd.	Amos.....	2-3	60	4,400	110	.....	305
Mun. Corporation of Twp. of Calvert.	Ansonville.....	2	60	220	110	6	863
Fred Deagle.	Blind River.....	1-3	60	550/220	110	2	420
The Algoma District Power Co., Ltd.	Bruce Mines.....	1-3	60	220	110/220	.....	67
Mrs. F. W. McKee.	Cache Bay.....	1	60	2,200	110	.....	115
Hydro Electric Power Com. of Ontario.	Callander.....	1-3	60	2,200	110/220	3	185
Municipal Corporation of Town of Capreol.	Capreol.....	1	60	2,300/550/220	220/110	2	396
Chapleau Elec. Light & Power Co.	Chapleau.....	1-3	60	110/220	110	33	442
Northern Ontario Power Company, Ltd.	Cobalt.....	2-3	60	2,200/220	110	151	1,344
Public Utilities Commission.	Cochrane.....	1-3	25	33,000/2,200/550	110	11	726
The Huronian Company, Limited.	Copper Cliff.....	1-3	60	44,000	110	.....	670
The Lorne Power Company, Limited.	Copper Cliff.....	3	60	220	220/110	.....	18
The Algoma District Power Co., Ltd.	Desbarats.....	1-3	60	110/220	110/220	1	28
Northern Ontario Power Company, Ltd.	Earlton.....	1-3	60	220	110/220	.....	16
The Algoma District Power Co., Ltd.	Echo Bay.....	1-3	60	110/220	110/220	1	118
Northern Ontario Power Co., Ltd.	Elk Lake.....	1-3	60	110/220	110/220	7	224
Northern Ontario Power Co., Ltd.	Englehart.....	1-3	60	2,300/550	220/110	2	382
The Abitibi Power & Paper Co., Ltd.	Espanola.....	1-3	60	110	110	1	90
Gore Bay Utilities Commission.	Gore Bay.....	1-3	60	110/220	110/220	21	637
Northern Ontario Power Co., Ltd.	Haleybury.....	1-3	60	110/220	110/220	.....	22
The Algoma District Power Co.	Hawk Junction.....	1-3	60	220	110/220	.....	.....

Canadian National Railways		1-3	60	550/550 to 220/110	5
Hearst.....		1-3	60	550/550 to 220/110	5
Homepayne.....		3	60	550/550 to 220/110	60
Iroquois Falls.....		3	60	600/550	302
Kapuskasing.....		1-3	60	220/110	657
Kirkland Lake.....		1-3	60	110/220	1,187
La Sarre.....		1-3	60	110/220	420
Little Current.....		1-3	60	110/220	185
Massey.....		1	60	110/220	84
Mattawa.....		1-3	60	110/220	7
Monteith.....		2	60	220	30
Northern Ontario Power Company Ltd.		1-3	60	110/220	725
Hydro Elec. Power Com. of Ontario.		1-3	60	220	20
Northern Quebec Power Co., Ltd.		1-3	25	550/220/110	332
Hydro Elec. Power Com. of Ontario.		1-3	60	110/220	165
Hydro Elec. Power Com. of Ontario.		1-3	60	220	3,635
Northern Quebec Power Company.		1-3	60	110/220	190
Corp. of Sault Ste. Marie, Water & Light Dept.		1-3	25	550/220/110	657
The Great Lakes Power Co., Ltd.		1-3	60	110/220	5,624
The Abitibi Power & Paper Co., Ltd.		1-3	60	220	196
Northern Ontario Power Company.		1-3	60	220	110
Corp. of Town of Sturgeon Falls.		1-3	60	220/110	5
Corp. of Town of Sudbury.		1-3	25	110/220	78
Northern Ontario and Power Company.		1-3	60	220/550	47
Canadian International Paper Co.		2-3	60	110/220	88
The Town of Thessalon.		1-3	25	220	4,346
Northern Ontario Power Co., Ltd.		1-3	60	110/220	111
Verner Electric Power Syndicate.		1-3	60	550/220	166
Northern Quebec Power Company, Ltd.		1-3	25	220/110	300
Lloyd Deagle & Company.		1	60	110/220	3,478
Webbwood.....		1-3	60	2,000	65
Total number of meters in District of Sudbury		1-3	60	110/220	113
				550	60
					1,224
					31,423
Fort William—					
Canadian National Railways		1-3	60	550/220/110	30
Canadian National Railways				110	9
Town of Dryden.		1-3	60	110	375
Dryden Paper Company, Ltd.					
(Serving).....		1-3	60	110	2
Dryden—		1-3	60	110	1
Eagle River		1-3	60	110	4
Wanwright		1-3	60	110	
Emo.....					
Fort Frances—		2-3	60	110	33
Fort Frances—				220/110	1,854
Station No. 1.....					
Big Falk, Station No. 2		1-3	60	110	7
Crilly, Station No. 3		1-3	60	110	2
Calm Lake, Station		1-3	60	110	2
No. 4.....		1-3	60	110	2

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Fort William</i> —Concluded							
Township of Melville.....	Fort Frances.....	2-3	60	110	110	82	31
Hydro Electric Commission.....	Fort William.....	1-3	60	23,000/2,300/575/230	115/230	26	6,402
Kaministiquia Power Co., Ltd.....	Fort William.....	3	60	22,000/23,000	210/220		29
				72,200/2,400	110/115		
				550/600			
The Canadian Pacific Railway Co., Corporation of the Town of Kenora..	Ignace.....	1-3	D.C.	110	110	1	2
Keewatin Power Company.....	Kenora.....	1-3	60	2,200/220/110	220/110	75	2,026
(Serving).....	Kenora Power House. Norman Dam Power House.....	1-3	60	2,400	110/220	6	
Canadian National Railways.....	Nakina.....	1-3	60	6,600	110/220	2	8
Nipigon Hydro Electric Commission.....	Nipigon.....	1-3	60	550	550-220/110		134
The Public Utilities Commission.....	Port Arthur.....	3	60	22,000/2,200/550	110/220	73	4,823
The Town of Rainy River.....	Rainy River.....	1-3	60	220	220/110	1	325
The Canadian Pacific Railway Co.,.....	Schreiber.....	3	D.C.	250	125		2
The Town of Sioux Lookout.....	Sioux Lookout.....	1	60	2,200	110/220	5	400
National Transcontinental Railway.....	Sioux Lookout.....	3	60	550	110		13
Total number of meters in the district of Fort William.....						352	16,560
<i>Winnipeg</i> —							
The Town of Beausejour.....	Beausejour.....	1-3	60	550/220/110	110	31	201
The Town of Birdle.....	Birdle.....	1-3	60	220	110/220	10	10
Canada Gas & Electric Corporation.....	Brandon.....	1-3	60	2,300	120	172	3,739
The Town of Carberry.....	Carberry.....	1-2	60	220	115		220
The Town of Dauphin.....	Dauphin.....	1-2-3	60	120	110	58	930
Eden Elec. Light Local Imp. Dist.....	Eden.....	D.C.		2,200	120		32
The Town of Emerson.....	Emerson.....	1-3	60		110	3	186
The Town of Emerson.....	Ethelbert.....	D.C.		550	110/220		60
D. H. Nickelish.....	Flin Flon.....	1-3	60		110	1	1
Hudson Bay Mining & Smelting Co., Ltd.....	Gladstone.....	3	60	550	110		152
Fido Flour Mills Co., Ltd.....	Gladstone.....	3	60		110/125		22
Gladstone Mun. Elec. Lt. & Pr. Dept.....	Grandview.....	D.C.		220	110	1	76
William Bickel Estate.....	Gretina.....	1-3	60		110		
A. Coblenz & Son.....	Griswold.....	D.C.					
Jas. M. McDonald.....							

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Winnipeg—Concluded</i> Manitoba Power Commission— <i>Concluded</i> (Serving).....	Winnipeg.....						
	Somerset.....					2	78
	Sparting.....					3	54
	Swan Lake.....					5	61
	Treherne.....					5	126
	Virden.....					15	437
	Wawanesa.....						87
	Winkler.....					3	115
	Winnipeg.....						
	Central Manitoba Mines District.....	3	60			2	
Manitoba Power Company, Ltd. (Serving).....	Great Falls.....	3	60	110	550	1	19
	Lac du Bonnett.....	1-3	60	2, 200/550	110/220	1	99
	Pine Falls.....	1-3	60		110/220		2
	Winnipeg.....	1-3	60	110/220	110/220		
	Benito.....					3	21
	Bowsmen.....					13	64
	Deloraine.....						177
	Durban.....						11
	Hamiota.....					6	125
	Kenville.....						10
National Utilities Corporation, Ltd. (Serving).....	Swan River.....					8	194
	Winnipeg.....	1-3	60	2, 200/550	110/220		
	Municipality of Assiniboia.....					10	348
	Municipality of Charleswood.....					3	164
	Municipality of St. James.....					44	5,158
	Town of Tuxedo.....					7	108
	Winnipeg.....	1-3	60	550/2, 200/12, 000/ 22, 000	110		
	Municipality of East Kildonan.....					2	2,353
	Municipality of Fort Garry.....					14	1,030
	Municipality of North Kildonan.....					8	205
Suburban Rapid Transit Co. (Serving).....							
Winnipeg Electric Company (Serving).....							

Winnipeg Electric Company. (Serving).....	Municipality of St. Vital.....	1-3	60	4, 000/550	110/220	12	3,676
Winnipeg.....	Municipality of West Kildonan.....						
City of St. Boniface..						12	1,848
City of Winnipeg.....						153	5,499
Town of Transcona...						1,007	14,055
Village of Penawa....						5	15
Winnipeg.....							3
Winnipeg, Selkirk & Lake Winnipeg Ry. (Serving).....	Municipality of Rock- wood.....	1-3	60	2, 200/550	110/220		
	Municipality of Stony Mountain.....					22	307
	Municipality of St. Andrews.....					2	85
	Municipality of St. Paul.....					33	133
City of Winnipeg Hydro Elec. System. (Serving).....	Winnipeg.....	1-3	60	220/550/2,400	115/120	5	128
	Beausejour.....						
	Bird's Hill.....					2	
	Brooklands.....					12	95
	East Kildonan.....					2	690
	Fort Garry.....					4	536
	Old Kildonan.....						39
	Pointe du Bois.....					1	48
	Rosser.....					2	47
	Saldo.....						25
	Slave Falls.....					1	
	Stony Mountain.....					2	
	Transcona.....					4	49
	Tuxedo.....					22	1,780
	Tyndall.....					6	55
	West Kildonan.....					2	3
	Winnipeg.....	3	60			2	272
	Winnipeg Beach.....	3	60	220	110	1,306	61,218
					110	217	
						6	18
						3,398	116,368
	Aberdeen.....						
	Antler.....	D.C.			110		46
	Bateman.....	D.C.			110		5
	Battleford.....	D.C.			110		23
	Bengough.....	1-3	60	220	115	25	233
	Bienfait.....	D.C.			110		60
	Birsay.....	3	60	220	110/115	15	72
	Bladworth.....	D.C.			125		20
	Blaine Lake.....	D.C.			110		32
	Borden.....	D.C.			110		58
							38

Total number of meters in District of Winnipeg

Regina—

John T. Heinrichs.....

Joseph Gauthier.....

H. Fischmann.....

The Town of Battleford

Floyd Thornton.....

Bienfait Commercial

Harry Walton.....

H. L. Knelson.....

Blaine Lake Light & Power Co.

A. P. Weatherby.....

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Regina—Continued</i>							
Henderson Bros.	Bounty.....	D.C.			110		16
Ernest Clark.....	Bradwell.....	D.C.			110		55
A. Gandy & Son.....	Brook.....	1	60		110/220		24
Pearson Motor Co.....	Bromhead.....	D.C.			110		2
Brownlee Lighting & Development, Ltd.	Brownlee.....	D.C.			110		80
Electric Light & Power Co.	Bruno.....	D.C.			110		86
Cabri Light & Power Plant.....	Cabri.....	D.C.	60	220		5	230
Town of Canora.....	Canora.....	1-3			110		5
Magee & Snider.....	Carmichael.....	D.C.			110		36
C. A. Perry.....	Central Butte.....	D.C.			110		31
J. E. Nerada.....	Climax.....	D.C.			110		38
W. J. Best.....	Coderre.....	D.C.			110		44
Colonsay Electric Co.....	Colonsay.....	D.C.			110		
W. Pederson.....	Congress.....	1-3	60		110		68
Bennett & Son, Ltd.	Conquest.....	D.C.			110		4
Consul Electric.....	Consul.....	D.C.			110		10
H. M. Ching.....	Coronach.....	D.C.			110	5	59
Village of Cudworth.....	Cudworth.....	D.C.			110	7	72
C. A. Barsaloux.....	Cut Knife.....	D.C.			110	2	70
The Delisle Electric Light Co., Ltd.	Delisle.....	D.C.			110	10	42
L. E. Jones Company.....	Dismore.....	D.C.			110		41
Pierre Legault.....	Domremy.....	D.C.			110	8	18
Service Electric.....	Drake.....	D.C.			110		40
Village of Dunblane.....	Duck Lake.....	1-3	60		110		60
Wallis & Cleland.....	Dunblane.....	D.C.			110		35
The Village of Elrose.....	Eatonia.....	D.C.			110		69
Englefield Power Company.....	Elrose.....	D.C.			110		14
Eston Machine & Auto Company, Ltd.	Englefield.....	D.C.			110		103
Eyebrow Light Plant.....	Fston.....	D.C.			110		22
C. Robertshaw.....	Fyebrow.....	D.C.			110		10
William T. Lofts.....	Fife Lake.....	D.C.		110			5
A. W. Evans & Co.....	Glaslyn.....	D.C.			110		16
H. J. Follensbee.....	Glenavon.....	D.C.			110		50
Hanley Electric Light Plant.....	Glidden.....	D.C.			110		36
Village of Hawarden.....	Hanley.....	D.C.		110			32
Robert Galbraith.....	Hawarden.....	D.C.			110		58
Philip Pendlebury.....	Herschel.....	D.C.			110		
	Hodgenville.....	D.C.			110		

Canadian Utilities, Limited. (Serving)	Indian Head	1-3	60	110/220	110
Abernethy	60				
Balcanes	105				
Broadview	181				
Fleming	36				
Grenfell	208				
Hyde (Rural)	19				
Indian Head	373				
Lemberg	79				
Moosomin	245				
Nuedorf	64				
Rocanville	28				
Summerberry	82				
Wapella	103				
Whitewood	29				
Ituna	456				
Kamsack	110				
Keeler	110				
Kellher	110				
Kennedy	110				
Kerrobert	110				
Kindersley	110/220				
Kipling	110/220				
Kyle	110				
Lac Vert	110				
Lake Lenore	8				
Lancer	3				
Landis	36				
Langenburg	110				
Langham	110				
Langigan	14				
La Porte	95				
Lashburn	69				
Leslie	9				
Lestock	105				
Lloydminster	20				
Lockwood	19				
Lovena	272				
Lucky Lake	31				
Luseland	110				
Maidstone	110				
Manor	110				
Maple Creek	1				
Marcelin	110				
Marquis	110				
Maryfield	48				
Maymont	23				
Mazenod	47				
Melaval	10				
Melfort	10				
Mervin	10				
Ituna Electric Light & Power Co., Ltd.	60				
Town of Kamsack	110				
Keeler Electric Light Co., Ltd.	2,300/550/220				
Kellher Electric Light Plant	110				
W. E. Gardner	110				
Canadian Utilities, Limited	110				
Canadian Utilities, Limited	110				
Henry Mann	110				
Kyle Garage Company	110/220				
F. E. Darling	110/220				
Village of Lake Lenore	110				
J. L. Campbell	110				
Landis Garage & Machinery	110				
The Rex Garage Company	110				
The Town of Langham	110				
The Town of Langigan	110				
R. D. Ward	110				
Lashburn Electric Power Plant	110				
The Village of Leslie	110				
Alex. Shaw	110				
Canadian Utilities, Limited	110				
Ray Eldred	110				
James Arthurs	110				
Lucky Lake Motors, Ltd	110				
Finley Brothers	110				
Carl E. Hastings	110				
Wm. H. Bagot	110				
Maple Creek Lt., Pr. & Milling Co., Ltd.	110				
J. P. Sweeney	110				
H. M. Felhauer	110				
Stewart Bros.	110				
Robert Downing	110				
W. H. Precious	110				
E. E. Koepke	110				
Canadian Utilities	110				
Wm. Prosser	110				

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Regina—Continued</i>							
Dishaw & Lawrence.....	Milden.....	D.C.	.....	110	110	.....	45
Anton Hepher.....	Montmartre.....	D.C.	.....	.....	110	.....	26
National Lt. & Pr. Company.....	Moose Jaw.....	1-3	60	220	110	272	5,457
Town of Moose.....	Morse.....	1-3	60	220	110	2	92
Hodges Kahlo & Company.....	Mortlach.....	D.C.	.....	.....	110	.....	18
Alex. L. Thompson.....	Mossbank.....	D.C.	.....	.....	110	.....	62
John Padbury.....	Nacan.....	D.C.	.....	.....	110	.....	9
Star Garage.....	Neidpath.....	D.C.	.....	.....	110	.....	6
Walter O. Schneider.....	Neville.....	D.C.	.....	220/110	110	.....	45
Canadian Utilities, Limited.....	Nokomis.....	1-3	60	.....	.....	.....	.....
(Serving).....	Duval.....	.....	.....	.....	.....	3	44
	Govan.....	.....	.....	.....	.....	9	136
	Imperial.....	.....	.....	.....	.....	7	102
	Manitou Beach.....	.....	.....	.....	.....	1	27
	Nokomis.....	.....	.....	.....	.....	5	124
	Semans.....	.....	.....	.....	.....	6	121
	Simpson.....	.....	.....	.....	.....	1	61
	Strasbourg.....	.....	.....	.....	.....	7	139
	Watrous.....	.....	.....	.....	.....	28	332
	Young.....	.....	.....	.....	.....	7	86
	Norquay.....	D.C.	.....	.....	110	.....	45
City of North Battleford.....	North Battleford.....	1-3	60	220	110/220	100	1,200
Montana-Dakota Power Company.....	North Portal.....	1-3	60	220	110/220	4	57
Village of North Regina.....	North Regina.....	1	60	110	110	1	99
J. C. Fish.....	Ogema.....	D.C.	.....	110	110	.....	85
The Town of Outlook.....	Outlook.....	1-3	60	110	110	.....	195
Nick Oberle.....	Pangman.....	D.C.	.....	.....	110	.....	24
Pelly Electric Lt. & Pr. Company, Ltd.....	Pelly.....	D.C.	.....	.....	110	.....	35
Samuel Pace.....	Pertue.....	D.C.	.....	.....	110	.....	71
Preeceville Electric Light Wks.....	Preeceville.....	D.C.	.....	.....	110	.....	50
City of Prince Albert Lt. & Wk. Dept.....	Prince Albert.....	1-3	60	2,200/550/220	110	96	1,923
Punnichy Electric Light Co.....	Punnichy.....	D.C.	.....	.....	110	.....	50
Village of Quill Lake.....	Quill Lake.....	D.C.	.....	.....	110	.....	44
The Town of Radisson.....	Radisson.....	D.C.	.....	.....	110	.....	86
Rice Bros. Electric Light Co.....	Raymore.....	D.C.	.....	32	110	.....	41
H. G. Llewellyn.....	Redlyn.....	D.C.	.....	.....	32	.....	11
Foster Ross.....	Redvers.....	D.C.	.....	.....	110	.....	30

Dominion Electric Power, Ltd. (Serving)	Regina...	1-3	60	220	110	
Admiral	Regina...	1-3			110	55
Aneroid...	Admiral					2
Assiniboia	Aneroid...					4
Biggar	Assiniboia					27
Cadillac	Biggar					39
Craik	Cadillac					5
Crichton	Craik					5
Davidson	Crichton					9
Fastend	Davidson					17
Estevan	Fastend					3
Gravelbourg	Estevan					107
Gull Lake	Gravelbourg					49
Hazenmore	Gull Lake					742
Hebert	Hazenmore					26
Hudson Bay Jct.	Hebert					11
Instow	Hudson Bay Jct.					1
Kincaid	Instow					17
La Fleche	Kincaid					1
Limerick	La Fleche					55
Melville	Limerick					3
Meyronne	Melville					85
Ponteix	Meyronne					5
Radville	Ponteix					134
Scotsguard	Radville					6
Shaunavon	Scotsguard					97
Woodrow	Shaunavon					34
Regina...	Woodrow					1
Regina...	Regina...	3	60	110	110	47
Regina...	Regina...	1-3	60	110	110	1
Regina...	Regina...	D.C.		220	110	
Alameda	Regina...	3	60	110/220	110/220	62
Areola	Alameda					1
Avonlea	Areola					61
Balgonie	Avonlea					4
Belle Plaine	Balgonie					145
Briercrest	Belle Plaine					83
Bulyea	Briercrest					52
Carlyle	Bulyea					17
Carnuff	Carlyle					55
Corinne	Carnuff					3
Craven	Corinne					27
Creelman	Craven					97
Cupar	Creelman					133
Drinkwater	Cupar					13
Dysart	Drinkwater					17
Earl Grey	Dysart					41
Fellmore	Earl Grey					103
Forget	Fellmore					55
Fort Qu'Appelle	Forget					38
Fort Dan...	Fort Qu'Appelle					43
	Fort Dan...					69
						22
						87
						13

Estate of J. S. Donahue

J. M. W. Gallagher

McCallum, Hill Building Co., Ltd.

Montreal Engineering Co., Ltd.

(Serving)

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Regina—Continued</i> Montreal Engineering Co., Ltd.— <i>Concluded</i> (Serving)	Regina.						
	Francis.					2	49
	Frobisher.						26
	Froude.					1	8
	Glen Ewen.						29
	Grand Coulee.						10
	Griffin.						32
	Howard.					1	23
	Kisbey.					3	64
	Lajord.					1	18
	Lang.					5	88
	Lebert.					2	28
	Lipton.					1	45
	Lumsden.					3	129
	Macklin.					3	79
	Markinch.						18
	McLean.					1	21
	McTaggart.					1	20
	Milestone.					6	116
	Osage.					1	24
	Oxbow.					4	133
	Pasqua.						15
	Pense.					5	84
	Pilot Butte.						14
	Qu'Appelle.					3	125
	Rouleau.					7	175
	Sedley.					2	43
	Silton.						23
	Southey.						59
	St. Joseph's Colony.					4	12
	Stoughton.						62
	Tyvan.					1	22
	Wilcox.					6	86
	Yellow Grass.			110/220/4,000	110/220	620	140
	Regina.	1-3	60	110/220/4,000	110/220		13,171
	Regina.	1-3	60	220	220/110		4
	Regina.	1-3	60				
	Saskatchewan Power Com. (Serving)						75
<i>Regina Municipal Lt. & Pr. Plant.</i> <i>The Saskatchewan Co-Operative Creameries.</i> <i>Saskatchewan Power Com.</i> (Serving)							

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Regina—Concluded</i>							
Canadian Utilities Limited.....	Wilkie.....	1-3	60	220	220/110	15	309
Willow Bunch Electric.....	Willow Bunch.....	D.C.			110		69
H. H. Lee.....	Wiseton.....	D.C.			110		33
Canadian Utilities, Ltd.....	Yorkton.....	1-3	60	550/220	115	78	1,333
Total number of meters in District of Regina.....						2,894	59,754
<i>Calgary—</i>							
Dept. of Interior—Parks Branch.....	Banff.....	1-3	60	220/110	110	11	699
Can. Pac. Ry. Dept. of Natural Resources.....	Bassano.....	3	60			1	320
West Canadian Collieries, Ltd.....	Bellevue.....	1-3	60	2,300	110/220	9	110
West Canadian Collieries, Ltd.....	Blairmore.....	1-3	60	2,300	110/220	30	381
The Town of Blairmore.....	Blairmore.....	1-3	60	110/220	110	26	15
The Town of Brooks.....	Erooks.....	3	60	220	110		9
Can. Pac. Dept. of Natural Resources.....	Brooks Irrigation Hdgtrs.....	1-3	60	220	110		19,906
Elec. Light Dept. City of Calgary.....	Calgary.....	1-3	60	220	105	747	2,338
The Calgary Water Power Co., Ltd.....	Calgary.....	1-3	60	220	110/220	156	73
Forest Lawn Power & Light Co., Ltd.....	Calgary.....	1-3	60	220	220/110	1	
Calgary Power Company (Supplying).....	Acme.....					12	85
	Andrie.....					5	22
	Aldersyde.....					4	12
	Arrowwood.....					4	40
	Balzac.....					2	3
	Barnwell.....					6	20
	Barons.....					4	80
	Bassano.....					20	280
	Beiseker.....					4	35
	Black Diamond.....					20	108
	Blackie.....					6	32
	Bowden.....					4	28
	Brant.....					1	
	Broxburn.....					1	
	Donaldson Mine.....					1	
	Calgary.....					1	
	Cardston.....					1	
	Carmangay.....					6	80

Carstairs.....	4	46
Cayley.....	6	40
Champion.....	12	109
Chancellor.....	2	12
Chin.....	1	310
Claresholm.....	20	75
Cluny.....	6	40
Coaldale.....	4	15
Coalhurst.....	3	131
Cochrane.....	6	60
Connemara.....	1	4
Craddock.....	2	190
Crossfield.....	6	12
Crowfoot.....	2	1
Diamond City.....	8	40
Didsbury.....	4	22
Elean Mine.....	1	28
Fusign.....	8	18
Fxshaw.....	1	375
Ghost River Dam.....	22	20
Gleichen.....	3	240
Glenwood.....	20	28
Granum.....	4	1
Hardieville.....	1	6
Hartell.....	1	4
High River.....	4	10
Horseshoe Falls.....	1	1
Hussar.....	1	1
Ianistail.....	4	1
Irricana.....	1	10
Jamieson.....	1	1
Kananaskis.....	1	1
Kathryn.....	1	1
Pocomo.....	1	1
Kirkcaldy.....	1	1
Lethbridge.....	4	1
Macleod.....	1	1
Maerath.....	1	1
Majestic Collieries.....	10	120
Maybutt.....	1	12
Mazeppa.....	2	4
McNab.....	1	1
Milk River.....	1	1
Monarch.....	4	38
Morley.....	2	20
Nanton.....	5	5
Naptha.....	20	210
New Dayton.....	4	12
Nobleford.....	4	22
Okotoks.....	4	33
Olds.....	12	108
	12	210

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of meters	
				Power	Lighting	Power	Lighting
<i>Calgary—Concluded</i>							
Calgary Power Company— <i>Concluded</i> (Serving)	Calgary. Barkland. Peacock Siding. Pearce. Penhold. Pincher City. Pincher Creek. Pulteney. Raymond. Rockyford. Standard. Staveley. Stirling. Strathmore. Taber. Tempest. Tudor. Turner Valley. Vulcan. Warner. Welling. Whiskey Row. Woodhouse.						14 2 1 24 8 280 4 1 6 48 3 90 18 60 160 1 2 112 40 10 12 2
Dept. of Interior, Parks Bch. The Canmore Coal Co., Ltd. The Town of Cardston. Cooley Brothers. Coal Producers, Limited. Coleman Light & Water Co., Ltd. International Coal & Coke Company, Ltd. McGillivray Creek Coal & Coke Co., Ltd. Southern Utilities Company, Ltd. Alberta Block Coal Co., Ltd. Union Power Company, Ltd. (Serving)	Canmore. Canmore. Cardston. Coalbrook. Coalhurst. Coleman. Coleman. Coleman. Coutts. Drumheller. Drumheller. Alliance. Big Valley.	1-3 3 3 1-3 1-3 3 3 1-3 3 1-3	60 60 60 60 60 60 60 60 60 60 60	2,200/440/220/110 220/110 115 110 220 2,200/440/220 2,200/440/220 2,200/440/220 220 220 220	110 110 110 115 110 220 110/220 110/220 110 110 115	2 29 23 2 29 8 2 2 3 3 3 8	111 135 269 39 180 441 441 19 58 77 127

Botha.	Carbon	Castor	Coronation	Craigmyle	Delia	Drumheller	East Coulee	Equity	Erskine	Fleet	Forestburg	Gadsby	Galahad	Halkirk	Hanna	Heskeith	Michichi	Morrin	Munson	Newcastle	Rosedale	Stettler	Swalwell	Three Hills	Trochu	Wayne	Willow Creek	Yndiang	Fernie, B. C.	Frank	Leidal Brothers	Hillcrest	Hill Springs	Lethbridge	Macleod	Medicine Hat	Oyen	Raymond	Retlaw	Sibbald	Strathmore	Strathmore Irrigation	Hdgtrs.	Vulcan	Wayne	Wayne	Wayne	Youngstown	Total number of meters in district of Calgary					
46	2	12	8	9	11	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51	29	452	2	15	33	4	53	3	319	6	110	360	176	121	126	22	2	1	65	12	47	27	3, 300	472	2, 017	1	75	342	10	17	282	23	25	17	80	40, 649
2	12	8	9	11	14	69	14	107	1, 102	70	3	48	10	72	1	40	3	51																																				

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Edmonton—</i>							
Alexo Coal Co., Ltd.....	Alexo.....	3	60		110		25
The Athabasca Electric Light Co., Ltd.....	Athabasca.....	1-3	60		110/220		63
<i>Thorp Brothers.</i>							
Hector Maheu.....	Pentley.....						30
Cadomin Coal Co., Ltd.....	Bonnyville.....	3	60	220	110	1	24
Calgary Power Company, Ltd.....	Cadomin.....	1-3	60	2,200/550/220/110	110		
(Serving).	Calgary.....	1-3	60	220	110	2	
	Alx.....					3	8
	Amisk.....						14
	Bashaw.....					3	106
	Bawlf.....					1	63
	Blackfalds.....						13
	Bruderheim.....					3	69
	Cadogan.....						28
	Camrose.....					48	619
	Chipman.....					8	72
	Clive.....					3	46
	Clyde.....						44
	Czar.....					1	27
	Daystand.....					6	89
	Edberg.....					1	33
	Ferintosh.....						31
	Fort Saskatchewan.....					5	212
	Hardisty.....					9	136
	Hayter.....						12
	Hobbs.....					1	1
	Hughenden.....						40
	Irma.....					1	62
	Killam.....					9	89
	Lacombe.....					55	378
	Lamont.....					6	119
	Leduc.....					9	216
	Legal.....					5	45
	Loughheed.....					3	58
	Metiskow.....						14
	Millet.....					3	61
	Mirror.....					3	129
	Mormville.....					4	79

[illegible]

Crows Nest Pass									
Elko.....	1								24
Fernie.....	1								1
Michel.....	1								1
Morrissey, Fernie & Michel Rlwy.....	1								48
Wardner.....									
Field.....		D.C.							
Golden.....	3	60	110						115
Corporation of the City of Grand Forks.....	1-3	60	2, 200/220						110
Greenwood.....	2	60	2, 200						13
Kaslo.....	1-2	60							120
Corporation of the City of Kelowna.....	1-3	60	220						110/115
Consolidated Mining & Smelting Co.....	3	60	550/2, 200						128
Nakusp.....	3	60	600						34
Corporation of the City of Nelson.....	3	60	110						1
The Denver Light & Power Co.....	2-3	60	2, 300/440/220						1
Corporation of the District of Peachland.....	1-3	60							2
Penticton.....	1-3	60	220						110
Corporation of the City of Revelstoke.....	1-3	60	110/220						111
Cascade Water Power & Light Co., Ltd.....	1-3	60	220/2, 200						31
Okanagan Water Power Company.....	3	60	2, 200						1,030
South Kootenay Water Power Co.....									
Rossland Water & Light Co.....									
West Kootenay Power & Light Co., Ltd. (Serving).....	3	60	110/2, 200						
Bonington No. 1 Power House.....	1-3	60	110/220/2, 200						
Bonington No. 2 Power House.....									
Bonington and South Slocan No. 3 Power House.....									3
Cascade.....									4
Experimental Farm.....									
Grand Forks.....									3
Greenwood.....									61
Kelowna.....									2
Naramata.....									18
Okanagan Mission.....									21
Oliver.....									2
Penticton.....									4
Rossland.....									1
Summerland.....									45
Trail.....									83
Ymir.....									10
Sandon.....									4
Scamious.....									2
Consolidated Mining & Smelting Co.....	1-3	60	60, 000/2, 200/550						46
Trail.....									1
									110
									115
									110/220
									2
									113

Sandon Water Works & Light Co.
 Scamious Hotel Power House.
 Consolidated Mining & Smelting Co.

APPENDIX H—Continued

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Nelson</i> —Concluded West Canadian Hydro Electric Corp., Ltd. (Serving).....	Vernon.....	1-3	60	220	110	10	332
	Armstrong.....						20
	Canoe.....					1	82
	Coldstream.....					1	191
	Enderby.....					3	46
	Lumby.....						36
	Okanagan Landing.....					3	266
	Salmon Arm.....					51	1,296
	Vernon.....			220	115/125	17	386
	West Summerland.....	1-3	60		115		49
Canadian Pacific Railway Company.....	Yahk.....	1-3	60			874	15,132
Total number of meters in the district of Nelson.....							
<i>Vancouver</i> — The Granby Cons. Mining, Smelting and Power Co., Ltd. The Granby Cons. Mining, Smelting and Power Co., Ltd. Ashcroft W. E. and I. Company..... Britannia Mining & Smelting Co., Ltd. Anthony M. Ruddy..... Clayburn Company, Limited..... Coalmont Collieries, Limited..... Cultus Lake Park Board..... Canadian Western Lumber Company, Ltd..... Kitamax Water & Power Co., Ltd.... Hedley Gold Mining Company, Ltd.... Hope Trading and Supply Co..... B.C. Electric Railway Co., Ltd..... McBride Electric, Limited..... Corporation of City of Merritt..... Nicola Pine Mills, Limited..... Prunette Operations..... Corporation of City of New Westminster..... Mohawk Lumber Company, Ltd..... Pacific Mills, Limited..... Hannum and Cedar Company, Ltd..... Powell River Company, Ltd.....	Allenby.....	1-3	60	2,200	110/220		
	Anyox.....	3	60	2,300/440/220	110/220		
	Ashcroft.....	3	60		110		62
	Britannia Beach.....	1-3	60	6,600-440-220	110	1	197
	Burns Lake.....			120	120		14
	Clayburn.....	1-3	60	2,200/220	110	24	11
	Coalmont.....	3	60	550	10,800		120
	Chilliwack.....				110		70
	Fraser Mills.....	3	60	440	480/2200	35	
					/110/220		20
	Hazelton.....			125	125		4
	Hedley.....	3	60	2,200	110		8
	Hope.....			110	110		
	Kamloops Division.....	1-3	60	2,300/220/110	110	149	1,862
	McBride.....	1-3	60		110		60
Merritt.....	3	60	2,400	110	9	355	
Merritt.....	3	60	440	110			
New Westminster.....	3	60	440	110	2	2	
New Westminster.....	3	60	440	110	40	5,781	
New Westminster.....	1-3	60	110/220				
New Westminster.....	3	60	2,300/220			432	
Ocean Falls.....	3	60	2,300/440/220			6	
Port Hammond.....	3	60	440	115/120		3	
Powell River Company, Ltd.....	3	50	2,200/550	110/220		48	

Northern B. C. Power Co., Ltd.	1-3	60	220	110	26	724
Princeton Light & Power Co., Ltd.	1-3	60	220	110/220	79	1,700
Quesnel Light & Water Co.	3	60	220	110	9	317
Braden Bros.	3	60		110		63
West Kootenay Pr. & Lt. Co., Ltd.						8
(Serving).....	3	60	60,000/20,000	2,000		
Princeton.						
Allenby.....					3	
Copper Mountain.....					6	2
Smithers.....	3	60			2	
Northern B. C. Power Co., Ltd.						
Frederick C. Bishop.....	1-3	60		110		246
B. C. Electric Railway Co., Ltd.			220	110/220	3	202
(Serving).....				120		18
Vancouver.....			2,300/440/220/110	110		
Burnaby.....	1-3	60				
Cocuitlam.....					55	6,113
Fraser Valley.....					19	798
Ladner.....					202	5,442
New Westminster.....					25	525
North Vancouver.....					96	18
Point Grey.....					70	3,645
Port Moody.....					97	11,218
Richmond.....					17	352
South Vancouver.....					62	1,128
Vancouver City.....					103	10,520
West Vancouver.....					1,866	44,597
Vancouver.....	3	60			7	1,438
Vancouver.....	1-3	60				
Vancouver (Sefon Creek).....	1-3	60	220/2,200	110/220	1	
Vancouver.....	1-3	60	220/110	110		
Vancouver.....	3	60	480	110	7	135
Vancouver.....	3	60	440	110	1	
Vancouver.....	3	60		110	1	2
Vancouver.....	3	60				
Total number of meters in the district of Vancouver						
<i>Victoria—</i>						
The Victoria Lumber & Mfg. Co., Ltd.	1-3	60			3,031	98,258
The Corporation of City of Courtenay.....	1-3	60	660	110		230
Cumberland Electric Lighting Co., Ltd.	1-3	25	2,200/110/220	110	9	707
Minto Electric Light, Heat & Pr. Co., Ltd.	1-3	25	110/220	110	10	652
Duncan Utilities, Limited.						
(Serving).....	1	25	No. 1)	110		
Wood and English, Limited.....	1-3	60	220/110	110	2	34
Comox Logging & Railway Co.	1-3	60	480		69	766
Canadian Industries, Ltd.	1-3	25	220	110	5	25
The Corporation of City of Ladysmith.....	1-3	60	220	110	1	21
Canadian Collieries (Dunsmuir).....	1-3	60	220	110		69
(Serving).....			220	110	9	550
Nanaimo.....						
Cumberland.....	1-3	60	2,200-440	110	2	129
Wellington.....			220/250	220/250		
D.C.						

APPENDIX H—Continued

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1930

District and Company	Address	Phases of System	Frequency of System	Service Voltages		Number of Meters	
				Power	Lighting	Power	Lighting
<i>Victoria</i> —Concluded							
Nanaimo Elec. Lt., Pr. & H'ing. Co., Ltd. (Serving)	Nanaimo..... Nanaimo..... Brechin..... Chase River..... North Wellington..... Northfield..... Harewood..... South Wellington..... Parksville..... D.C.	1-3	60	2,300/440/220/110	110	92	2,752
Parksville Lt., Pr. & H'ing. Co., Ltd.	Parksville.....	1	25		110		37
Royston Light & Power Co., Ltd.	Royston.....	1-3	60	2,200/440	220/110		37
British Columbia Pulp & Paper Co., Ltd.	Vancouver.....						
British Columbia Cement Co., Ltd. (Serving)	Victoria..... Bamberton..... Tod Inlet Plant.....	1-3 1-3 1	60 60 60	550	110	2	30
B.C. Electric Railway Company, Ltd.	Victoria.....	1-3	60	4,000/440/220	110	502	19,406
National Utilities Corporation	Victoria.....	1-3	60	2,200/440/220	110	47	834
Pemberton & Son	Victoria.....	1	60	110/220	110	1	14
J. A. Sayward	Victoria.....	1	60		110		10
Vancouver Island Power Co. (Serving)	Victoria— Brentwood..... Jordan River..... Victoria.....	3 3 1	60 60	60,000 60,000			
Victoria Electric Company					110		21
Total number of meters in the district of Victoria..						751	26,324

APPENDIX H—Concluded

SUMMARY

Total Number of Meters, by Provinces, in Use in Canada, March 31, 1930

	Power	Light
Prince Edward Island.....	145	4,478
Nova Scotia.....	2,287	47,610
New Brunswick.....	1,134	38,020
Quebec.....	13,292	405,053
Ontario.....	18,414	632,979
Manitoba.....	3,398	116,368
Saskatchewan.....	2,961	59,754
Alberta.....	3,264	68,969
British Columbia.....	4,656	139,714
Totals.....	49,551	1,532,954

APPENDIX H

For purposes of inspection under the Electricity Inspection Act and the Gas Inspection Act the provinces of the Dominion have been divided into the following districts:—

Prince Edward Island—Charlottetown.

Nova Scotia—Halifax.

New Brunswick—St. John.

Quebec—Quebec, Three Rivers, and Montreal.

Ontario—Ottawa, Belleville, Toronto, Hamilton, London, Sudbury and Fort William.

Manitoba—Winnipeg.

Saskatchewan—Regina.

Alberta—Calgary and Edmonton.

British Columbia—Nelson, Vancouver and Victoria.

DEPARTMENT OF TRADE AND COMMERCE
OTTAWA, CANADA

MINISTER
HON. H. H. STEVENS, M.P.

DEPUTY MINISTER
F. C. T. O'HARA

ANNUAL REPORT

OF THE

Board of Grain Commissioners
for Canada

FOR THE YEAR

1930



OTTAWA
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1931



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REPORT OF THE BOARD

BOARD OF GRAIN COMMISSIONERS FOR CANADA

WINNIPEG, January 21, 1931.

The Hon. H. H. STEVENS, M.P.,
Minister of Trade and Commerce,
Ottawa, Canada.

SIR,—The present Board of Grain Commissioners was appointed on August 29, 1929, and this report is the first, therefore, to cover a full year of its activities in discharge of its duties under the Canada Grain Act.

On assuming office the board was instructed by the Minister of Trade and Commerce to carry out a complete revision and consolidation of the existing statute and was authorized to secure the services of Col. O. M. Biggar, K.C., of Ottawa, for the work of redrafting the Act.

A complete study of the whole question of grain handling as regulated by the Canada Grain Act was therefore made, consideration also being given to the Report of the Royal Grain Inquiry Commission, 1923, the Brown Commission Report, 1928, and also the evidence given before the Select Standing Committee on Agriculture in the House of Commons, 1929 session, together with recommendations made by that committee. Conferences were held from time to time between the various interests and the board with a view to ironing out possible divergencies of opinion as to the effect of the proposed legislation, and most of the debatable points were ironed out before the legislation was submitted to the minister. The Act passed the House and the Senate on May 27, 1930, and came into effect by Proclamation of His Excellency the Governor General of Canada on September 1, 1930.

CHANGES BROUGHT ABOUT BY NEW ACT

While the Act was in the main a revision and consolidation of existing legislation, there were some changes brought about which have proved to be quite satisfactory both from an administrative and an operating standpoint.

ADMINISTRATION

The Act sets out very clearly the powers and duties of the board and permits it to deal with the practical operation of the trade by regulation, a much more elastic means of control than statutory enactment. These regulations, however, of necessity are consistent with the Act and while they may permit of adjustment of detail from time to time, do not relieve the board of responsibilities, imposed upon it by the Act, the chief advantage being the clarification of the board's position and its ability to enforce the regulations and legislation.

For the first time, this year the board has had assistant commissioners, located in the three Prairie Provinces and at Fort William. At the request of the minister, the board, after interviewing all applicants, recommended the following for these appointments, which were approved by Order in Council:—

For Alberta: Mr. W. H. Blatchford.

For Saskatchewan: Mr. R. S. Dundas.

For Manitoba: Mr. T. J. Harrison.

For Fort William: Mr. Jas. Robinson.

We regret to record the death of Mr. Jas. Robinson on October 6, 1929, and he was succeeded in office by Mr. F. J. Rathbone.

These appointments under the Act authorized the board to delegate such authority as they saw fit to these gentlemen, and they have been given substantially the powers of a commissioner, only limiting them to the particular sphere of their operations in each province, the board retaining in its own hands the final disposal of all cases.

The work of the assistant commissioners will be dealt with more fully subsequently.

The appointment of Mr. Rathbone to the position of Assistant Commissioner at Fort William left the position of secretary open, and Mr. John Rayner was promoted by the Civil Service Commission to this appointment.

In previous legislation the headquarters of the board were at Fort William. Under the 1929 Act the Board was given discretion as to where these head offices would be located. It was with much regret that the board decided that for the proper and efficient carrying on of its duties it was necessary to be in Winnipeg, and it was with great reluctance that it therefore had to sever its connections with the city of Fort William which had been current since the inauguration of the board, making Winnipeg its head office.

One of the principal changes in the Act and one which is beneficial to the trade generally has been the complete registration of terminal documents by the board. It was the practice under the previous board to register terminal warehouse receipts as to weight only. We now register these documents as to weight and grade and these documents are a first charge with the exception of liens established for handling and freight consonant with the Act. It is necessary for a borrower of money against terminal stocks to have in his possession terminal warehouse receipts as these documents are the only means he has of giving security on his grain.

A further problem connected with terminal elevator receipts developed out of the delay in the movement of grain from terminal points into consumption or export during 1930. Up until 1930 the custom was that storage on grain was paid when the elevator receipts changed ownership, but in that year terminal elevator companies found that they were carrying large stocks of grain for periods extending beyond one year, upon which they were unable to collect storage. This undoubtedly created a financial hardship upon these companies. As a result, a new form of warehouse receipt has been approved. This receipt provides that storage in arrears against grain in excess of thirty (30) days shall be paid twice a year, on February 15 and on August 15, at the office of the issuing company.

Under the amendments of 1929 to the Act the prohibition of mixing in One Hard, One, Two and Three Northern was effective on August 1, 1930. This legislation was continued in the present Act, and the binning of these grades is controlled by the board through its registration of documents, a simple, inexpensive and obvious means of doing so.

GRAIN STANDARDS COMMITTEES

These old established committees have been recast and modernized to meet the present situation. The Grain Standards Board for the Eastern Division, which was eliminated in the 1929 amendments, has been re-established and is under the supervision of the board.

The setting of standards has been dealt with in a practical way. There is a primary inspection standard which is used to grade farmers' grain, and an outturn standard which is used for all grain leaving terminal points. The introduction of the outturn standard has had a beneficial effect on our shipments and is, in the board's opinion, a practical means of assurance that the export standards of Canadian grain will maintain their high quality.

The preparation of the general standards for all grains, embodied in the Act, was the work of an expert committee of inspectors under the charge of the chief inspector and they succeeded in eliminating a great deal of the multiplicity of grades which had gradually crept in to the work of the department.

These are the major changes made in the legislation and the change in practice involved has come into being with a minimum of disturbance to the trade generally and we have so far encountered no difficulty in administration which has proved insurmountable.

PREPARATION OF A HAND BOOK

The Agricultural Committee of Parliament in 1929 recommended the publication of a handbook which would make available to the grain grower in simple terms the main provisions of the Canada Grain Act. Such a handbook has been prepared by the board and is now in the press.

TARIFF SESSIONS

Maximum tariffs covering country elevator charges and terminal charges for points in Alberta, Saskatchewan, Manitoba and Ontario as far east as Fort William-Port Arthur, were approved at an open session of the board held in Winnipeg on August 7 of 1930. A similar session was held on August 20 of 1930 to approve of the maximum tariffs for elevators on the Pacific coast.

The board has initiated the practice of also holding an annual tariff session in the city of Toronto to approve of minimum tariffs for eastern elevators. This session was held this year on September 3.

In this connection it is to be noted that, pursuant to provisions of the Canada Grain Act of 1930, all eastern elevators, whether operated by private interests or public bodies such as Board of Harbour Commissioners, have applied for and received licences from the board.

SETTING OF THE GRAIN STANDARDS

With a view to setting the standards for the crop year of 1930-31 as early as possible, the board called the Western Grain Standards Committee together at Winnipeg on September 17 and 18 of 1930, when standards for western grain were selected, and settled as far as it was possible to do so. At a subsequent meeting on November 17, the work was completed by the establishment of standard grades not previously dealt with.

The standards for eastern grain were settled at meetings of the eastern Standards Committee held in Toronto on November 20 and in Montreal on November 21. Commissioner Hamilton represented the Board at the meetings of the Eastern Committee.

SUSPENSION OF THE COASTAL LAWS ON THE GREAT LAKES

At a public meeting held in the council room of the Winnipeg Grain Exchange on October 30 of 1930, the question was discussed whether there was ground for a recommendation to suspend, temporarily, the Canadian coastal laws on the Great Lakes, to permit vessels not otherwise entitled to load Canadian grain for winter storage. The meeting disclosed no demand for a suspension of the coastal laws. It was reported that there were sufficient Canadian boats to take care of any business that might offer. Following the precedent of last year, the board made no recommendation that the Canadian coastal laws on the Great Lakes should be suspended to permit other than Canadian vessels to load Canadian grain for winter storage.

COUNSEL

Mr. Travers Sweatman, K.C., has been appointed legal counsel to the board vice Mr. A. B. Hudson, K.C., resigned.

ASSISTANT COMMISSIONERS

The four assistant commissioners, to whose appointment reference has been made previously, have been of great assistance to the board. Owing to the very large establishment maintained at Fort William the work of Mr. F. J. Rathbone and for which he is very fully qualified by reason of his long association with the department, has been largely administrative. The assistant commissioners located on the prairies, in Alberta, Saskatchewan and Manitoba, have relieved the board from a great deal of travelling and left them free to attend to their executive and administrative duties.

The method of dealing with the assistant commissioners has been largely experimental in view of the fact that the appointment was a new departure. The assistant commissioners are delegated their powers by the board who have authority under the Act to endow them with similar powers as a commissioner. We have granted the necessary powers to each assistant commissioner, limiting these powers, however, to the province in which he is located. The assistant commissioners in their respective spheres deal with complaints under the Canada Grain Act received from farmers or others, compile the evidence in proper form and forward it to the board together with their recommendations. Before accepting such recommendations the case is completely reviewed by the board and order issued disposing of the same as finally determined. The assistant commissioners have instructions on receipt of a complaint to at once proceed to the place where the alleged irregularity occurred and personally investigate first-hand the circumstances. If he is of the opinion that the complaint is justified and a settlement cannot be arranged he recommends to the board that the matter be dealt with formally. The board then issues the necessary authority for a formal investigation. The evidence is taken on oath, transcribed and forwarded to the board with the recommendation of the assistant commissioner who sat on the case. Before accepting the recommendation of the assistant commissioner the board reviews all the evidences and circumstances of the case and issues an order disposing of the same.

During the year under review we have issued seven (7) orders disposing of seven (7) inquiries. No appeals have been made, as permitted under the Act, against any order.

Assistant commissioners are fully aware of the importance of prompt attention and the expeditious handling of cases which while they usually concern small sums of money at the same time are of great importance to the individual complainant, and that it is important to deal with them while the evidence is fresh and the necessary witnesses available.

The number of cases dealt with are referred to in detail in appendix "A" attached to the secretary's report.

Where a farmer lays a complaint in connection with some grain matter which does not come within the purview of the board the assistant commissioners have made it a practice to offer the services of the board with a view to arranging an amicable settlement in connection therewith.

We believe that the system is working out very satisfactorily and that the appointments fill a long felt want on the part of the Board of Grain Commissioners.

DOMINION GRAIN RESEARCH LABORATORY

During the year the work of the laboratory has been continued along the same lines as indicated in previous annual reports. The chief inspector has been furnished from time to time, as occasion demanded, with information relating to the quality of the various types and varieties of wheat, the effect of different forms of damaged flax on the amount and quality of the oil produced therefrom, and quality of wheat dried at various elevators under different conditions, and many other related problems. Special reports were prepared for the three meetings of the Grain Standards Committee, and loaves exhibited illustrating the special points to which it was desired that particular attention should be drawn.

A number of special investigations have been undertaken on instructions from the board, and a certain amount of co-operative work carried out with other departments of the Government.

The full report of the chemist in charge, Dr. F. J. Birchard, is the subject of a separate report which we recommend to publish separately.

STAFF

The retirement of Mr. J. G. White, after sixteen (16) years of important and valuable service under the board, was followed by the promotion of S. M. Capon, Weighmaster at Vancouver, to this position.

We have to record the retirement of Mr. Fred Symes, Inspector, Grade 2, in charge at Fort William on superannuation after thirty years of valued service.

The small crop of 1929 made necessary certain reductions in the staff employed by the board, especially in connection with the services of inspection and weighing. Having regard both to the existing trade depression and to maintaining an organization intact, necessary for future requirements, the Board made an effort to retain as many experienced employees as possible, even though the amount of work available during part of the season was limited.

In presenting its annual report and the reports of its principal officers, which are attached hereto, the Board wishes to pay tribute to the cordial co-operation it has received from all its employees in maintaining the services for which it is responsible.

Respectfully Submitted,

E. B. RAMSAY,
Chief Commissioner.

D. A. MACGIBBON,
Commissioner.

C. M. HAMILTON,
Commissioner.

APPENDIX I

THE GRAIN STANDARDS BOARDS

A meeting of the Western Grain Standards Board as constituted under the Canada Grain Act, 1925, as amended 1929, was convened at Winnipeg by the board on January 10, 1930, to consider the schedule of grades and grouping thereof prepared by the board for inclusion in the new Canada Grain Act then being drawn up.

The following members of the committee were in attendance: Messrs. K. Campbell, E. B. Ramsay, D. A. MacGibbon, C. M. Hamilton, Geo. Serls, J. D. Fraser, Geo. Hill, C. R. Manahan, F. J. Birchard, Geo. Bennett, J. Wellbelove, A. E. Wilson, H. Sellars, W. McLeod, W. H. Boyle, J. D. Read, J. H. Robson, P. V. Wright, R. C. Steele (substitute for R. H. Mahoney), L. H. Newman, and T. J. Harrison.

Mr. W. H. Fairfield was unable to attend the meeting, as was also Dean Rutherford who submitted by letter certain recommendations regarding the details of grain grades outlined in the schedule sent to him.

Mr. J. D. Fraser, Chief Inspector of Grain, explained the schedule, item by item.

Dr. F. J. Birchard, Chemist in Charge, Dominion Grain Research Laboratory, addressed the meeting and afforded verbal information regarding the chemical baking tests of wheat samples having the character of the samples selected and representing those outlined in the schedule submitted. This information being accompanied by samples of bread baked from flour ground from the samples referred to above.

The schedule as prepared by the board was approved by the meeting with slight modifications and the amended schedule was the basis of the statutory definitions of Western Grain embodied in the Canada Grain Act, 1930.

J. RAYNER,

Secretary, Board of Grain Commissioners.

COMMITTEES ON GRAIN STANDARDS

Committees on Grain Standards to replace the Grain Standards Boards were constituted by the board in accordance with section 25 of the Canada Grain Act, 1930, for the crop year 1930-31 as follows:—

COMMITTEE ON WESTERN GRAIN STANDARDS

E. B. Ramsay, Chief Commissioner, Board of Grain Commissioners.

D. A. MacGibbon, Commissioner, Board of Grain Commissioners.

C. M. Hamilton, Commissioner, Board of Grain Commissioners.

J. D. Fraser, Chief Grain Inspector, Board of Grain Commissioners.

George Serls, Chairman, Grain Appeal Tribunal, Winnipeg.

George Hill, Chairman, Grain Appeal Tribunal, Calgary.

C. R. Manahan, Chairman, Grain Appeal Tribunal, Edmonton.

Dr. F. J. Birchard, Chemist in Charge, Dominion Grain Research Laboratory.

L. H. Newman, Dominion Cerealists, Department of Agriculture.
 H. Sellers, Representing the Millers.
 W. H. Boyle, Representing Grain Growers in Alberta.
 George Bennett, Representing Grain Growers in Alberta.
 W. McLeod, Representing Grain Growers in Alberta.
 W. H. Fairfield, Representing Grain Growers in Alberta.
 Dean A. M. Shaw, Representing Grain Growers in Saskatchewan.
 J. Wellbelove, Representing Grain Growers in Saskatchewan.
 J. D. Read, Representing Grain Growers in Saskatchewan.
 J. H. Robson, Representing Grain Growers in Saskatchewan.
 A. E. Wilson, Representing Grain Growers in Saskatchewan.
 P. V. Wright, Representing Grain Growers in Manitoba.
 R. M. Mahoney, Representing Grain Growers in Manitoba.
 G. P. McRostie, Representing Grain Growers in Manitoba.
 K. Campbell, Representing Grain Growers in British Columbia.

Dr. C. N. Bell, Secretary

COMMITTEE ON EASTERN GRAIN STANDARDS

E. B. Ramsay, Chief Commissioner, Board of Grain Commissioners.
 C. M. Hamilton, Commissioner, Board of Grain Commissioners.
 N. Wight, Representing the Montreal Board of Trade.
 A. O. Hogg, Representing the Toronto Board of Trade.
 T. A. Climo, Representing the Exporters of Grain.
 C. B. Watts and G. H. G. Short, Representing the Millers of Wheat in the Eastern Division.
 H. A. Gilroy, Representing Grain Growers in Ontario.
 J. J. Page, Representing Grain Growers in Ontario.
 J. M. Vilke, Additional.
 E. D. Sullivan, Additional.
 A. A. Bowen, Additional.

F. D. Tolchard, Secretary at Toronto

H. C. Beatty, Secretary at Montreal

Meetings of these committees were convened by the board as follows:—
 Western Committee at Winnipeg, September 17, 1930 and November 17, 1930.

Eastern Committee at Toronto and Montreal on November 20 and 21, 1930, respectively.

WINNIPEG, Man., September 17, 1930.

MINUTES OF THE MEETING OF THE COMMITTEE ON WESTERN GRAIN STANDARDS HELD IN WINNIPEG, SEPTEMBER 17, 1930, AT 10.30 A.M.

PRESENT: Messrs. E. B. Ramsay, Chief Commissioner; D. A. MacGibbon, Commissioner; C. M. Hamilton, Commissioner; H. Sellers, A. M. Shaw, J. Wellbelove, J. D. Read, J. H. Robson, A. E. Wilson, Wm. McLeod, W. H. Boyle, Geo. Bennett, W. H. Fairfield, P. V. Wright, Dr. C. P. McRostie, R. M. Mahoney, K. Campbell, J. D. Fraser, Dr. F. J. Birchard, L. H. Newman, Geo. Serls, Geo. Hill, C. R. Manahan, and C. N. Bell, Secretary.

Meeting was called to order by Mr. E. B. Ramsay, in the chair.

All members, as required by the Grain Act, filed their oaths of office.

Notice of meeting as sent to members was read, and the minutes of the last meeting were read and confirmed.

Mr. Ramsay suggested that the meeting choose a member to act as chairman in case of his absence from the meeting. Mr. K. Campbell was named as acting chairman, and Mr. Ramsay confirmed the nomination.

The chairman called on Mr. J. D. Fraser, Chief Grain Inspector, to give information in regard to the grain samples secured for this meeting, the grading of Garnet wheat; the percentage of Red Winter wheat inspected. A general informal and conversational discussion followed, Mr. Fraser and Dr. Birchard answering questions asked by members.

Mr. L. H. Newman, by request, addressed the meeting on the subject of Garnet, Reward and other wheats, and his experience thereon, and answered questions of members.

Mr. Ramsay, in conclusion, stated that he took it as the concensus of opinion of the meeting that the course at present pursued in the grading of Garnet wheat be continued for the present crop. No member opposed this conclusion.

A letter from the Saskatchewan Co-operative Wheat Producers, dated April 2, 1930, recommending that an additional grade be inserted between 3 Northern and the present No. 6 wheat, also that the committee give consideration to setting up a Tough and Moist grade to replace the present Tough grade, was read. On consideration of this letter, no motion followed, and the letter was tabled.

The meeting then adjourned until 1.45 p.m.

Meeting resumed in the grain inspection room, and during the afternoon viewed the samples submitted and adopted the following:—

- No. 1 C.W. Amber Durum Wheat.
- No. 2 C.W. Amber Durum Wheat.
- No. 3 C.W. Amber Durum Wheat.
- No. 3 Extra C.W. Six-rowed Barley.
- No. 3 Extra C.W. Trebi Barley.
- No. 3 C.W. Barley.
- No. 4 C.W. Barley.
- No. 5 C.W. Barley.
- No. 6 C.W. Barley.
- No. 1 C.W. Rye.
- No. 2 C.W. Rye.
- No. 3 C.W. Rye.
- No. 1 White Spring Wheat.
- No. 2 White Spring Wheat.
- No. 3 White Spring Wheat.

On motion the above samples were established as the official standards.

The meeting then adjourned to meet at 10 a.m. to-morrow in the grain inspection room.

THURSDAY, September 18, 1930.

The meeting was called to order at 10 a.m., when Dr. Birchard reported on the milling and baking tests of the tentative standard samples, 1 Hard to No. 6 wheat, answering questions of members, and generally affording information after members had viewed the samples of bread baked from the flour produced from the said tentative samples.

The tentative samples submitted by the Chief Grain Inspector were examined and on motion the samples of 1 Hard and 1 and 2 Northern wheat were adopted as the standards.

Motion by R. M. Mahoney and A. E. Wilson: "That the information in possession of this Standards Committee is not sufficient to enable them to select standard samples at the present time for Grades 3 and 4 Northern wheat."

The motion was carried by unanimous vote.

A motion was passed adopting standard samples for Nos. 4, 5, and 6 Wheat Specials. Moved by A. E. Wilson and J. D. Read:—

"The information in the possession of this Standards Committee is not sufficient to enable them to select standard samples at the present time for Nos. 5 and 6 wheat."

Motion carried.

Standard samples for No. 1 Hard, No. 1 and 2 Northern export grades, were selected and established.

Moved by J. D. Read and A. E. Wilson:—

"That wheat with moisture content sufficient to be classed as 'Tough' as at present, be divided into two classes, as follows:—

"(1) Wheat containing more moisture than is permitted in the straight grades, up to and including 15·5 per cent, be graded 'Tough' according to the grade it is entitled to.

"(2) Wheat containing over 15·5 per cent moisture up to the limit allowed in the present tough grades, to be graded as 'Moist'."

On the above motion being put to the meeting for vote, it was declared to be lost.

On motion the following were appointed as sub-committee "to define special Commercial Grades," viz: one member of the Board of Grain Commissioners, the Chief Inspector, Geo. Serls, Chairman of the Grain Appeal Tribunal, Dr. Birchard, Chief Chemist, R. M. Mahoney and A. E. Wilson.

The statement of the Chief Grain Inspector defining the grading of feed wheat, was, on motion of Messrs. Wilson and Mahoney, approved.

The meeting then adjourned.

(Signed) C. N. BELL,
Secretary.

WINNIPEG, MAN., November 17, 1930.

MINUTES OF THE MEETING OF THE WESTERN GRAIN STANDARDS COMMITTEE, HELD THIS DAY AT 10 A.M. IN THE BOARD ROOM, GRAIN EXCHANGE BUILDING

Present: Messrs. E. B. Ramsay, Chief Commissioner; C. M. Hamilton, Geo. Serls, J. D. Fraser, Geo. Hill, C. R. Manahan, Geo. Bennett, J. Wellbelove, A. E. Wilson, Wm. McLeod, W. H. Boyle, H. Sellers, J. H. Robson, P. V. Wright, K. Campbell, R. M. Mahoney, S. C. Swanton (substitute for J. D. Read).

Mr. Ramsay took the chair and announced that as this was a continuance of the meeting held on the 17th and 18th of September last, it was not necessary to read the minutes of that meeting.

In the absence of Dr. Birchard, Chief Chemist, his assistant Mr. Aikin, read a report on this wheat crop, as tested in the laboratory. He also presented loaves of bread, being the result of the milling and baking tests, and the same were inspected by the meeting. After many questions of details of the grading and

milling tests of the wheat so far inspected, were answered by Chief Inspector Fraser and Mr. Aikin, the meeting then adjourned to the Grain Inspection Department, where the following standards were selected and established, viz:—

- No. 3 Northern Wheat.
- No. 3 Northern Export or Outturn Wheat.
- No. 4 Northern Wheat.
- No. 4 Northern Export or Outturn Wheat.

Meeting adjourned from 12.30 to 2 p.m. and on reassembling, the following standards were selected and established, viz:—

- No. 5 Wheat.
- No. 5 Export or Outturn Wheat.
- No. 6 Sample adopted as the minimum, and if found necessary the committee appointed at the meeting on September 18, 1930, shall meet and select a standard for No. 6 Wheat.
- No. 2 C.W. Oats.
- No. 3 C.W. Oats.
- No. 1 Feed Oats.
- No. 2 Feed Oats.
- No. 1 C.W. Flax.
- No. 2 C.W. Flax.

A schedule of classification for "Off Grade Grain" drawn up by the Chief Grain Inspector, and in addition, a schedule for "Separations for Cereal Grains," were submitted by the chairman, and having been read, clause by clause, were adopted. (Attached.)

A telegram from the annual meeting of the Saskatchewan Wheat Pool, Regina, favouring a division of the moisture content, was read and discussed, and it was agreed that the Board of Grain Commissioners be requested to have the terminals and the officers of the board investigate, and ascertain the keeping qualities of Tough and Damp grain.

On motion, the board was requested to publish the report of the Chief Chemist on the milling and baking tests of wheat as submitted at this meeting.

On motion, the committee appointed to define if found necessary, the special Commercial Grades, was continued.

The meeting then adjourned.

(Signed) C. N. BELL,
Secretary.

MINUTES OF MEETING OF THE EASTERN COMMITTEE ON GRAIN STANDARDS HELD IN THE CITY OF TORONTO, THURSDAY, NOVEMBER 20, 1930

Present: Commissioner C. M. Hamilton, Board of Grain Commissioners, and Messrs. A. A. Bowen, T. A. Climo, H. A. Gilroy, A. O. Hogg, J. J. Page, E. D. Sullivan, J. M. Vittie and C. B. Watts.

The following officials of the Board of Grain Commissioners were also present: Mr James D. Fraser, Chief Inspector of Grain, and Mr. J. Rayner, Secretary to the Board.

The meeting convened in the Council Chamber of the Toronto Board of Trade, Royal Bank building, at 10 a.m. with Commissioner C. M. Hamilton acting as chairman, and Mr. F. D. Tolchard acting as secretary.

NOTICE OF MEETING

Mr. J. Rayner, Secretary to the Board of Grain Commissioners, read the notice calling the meeting, issued by the Board of Grain Commissioners for Canada from Winnipeg, under date of November 5.

OATHS OF OFFICE

Mr. Rayner reported that the oaths of office duly completed had been received from all members of the Eastern Committee on Grain Standards with the exception of Mr. C. H. G. Short of Montreal, who was absent in Europe.

The committee then adjourned to the office of the Grain Inspector, 28 Front Street East, Toronto, to select and settle the standard samples to be used in the current crop year in connection with the grading of grain in the Eastern Division as authorized by sections 24 and 25 of the Canada Grain Act, 1930.

The committee examined the samples submitted by the Grain Inspector and standard samples were set for the following grades:—

No. 1 White Winter Wheat.

No. 2 White Winter Wheat.

No. 3 Winter Wheat.

No. 1 Commercial Wheat.

No. 2 Commercial Wheat.

No. 1 Red Winter Wheat.

No. 2 Red Winter Wheat.

No. 1 Mixed Winter Wheat.

No. 2 Mixed Winter Wheat.

No. 1 White Oats.

No. 2 White Oats.

No. 3 White Oats.

No. 1 Rye.

No. 2 Rye.

No. 1 Barley.

No. 2 Barley.

No. 3 Extra Barley.

No. 3 Barley.

No. 4 Barley.

No. 2 Peas.

No. 1 Marrowfat Peas.

No. 1 White Peas.

No. 2 White Peas.

No. 2 Buckwheat.

In view of the absence of suitable samples of grain, the committee resolved that the selection and settling of the standard samples of the following grains be deferred:—

Spring Wheat.

Goose Wheat.

No. 4 Winter Wheat.

No. 1 White Corn.

No. 2 White Corn.

No. 1 Yellow Corn.

No. 2 Yellow Corn.

No. 3 Yellow Corn.

No. 1 Mixed Grain.

No. 2 Mixed Grain.

No. 3 Mixed Grain.

No. 4 White Oats.

No. 1 Black Oats.

No. 2 Black Oats.

No. 3 Black Oats.

No. 4 Black Oats.

No. 1 Mixed Oats.

No. 2 Mixed Oats.

No. 3 Mixed Oats.

No. 4 Mixed Oats.

No. 1 White Clipped Oats.

No. 2 Clipped Oats.

No. 3 Clipped Oats.

No. 4 Clipped Oats.

No. 3 Rye.

No. 4 Rye.

No. 1 Peas.

No. 3 Peas.

No. 2 Marrowfat Peas.

No. 3 Marrowfat Peas.

No. 3 White Peas.

No. 1 Mixed Peas.

No. 2 Mixed Peas.

No. 3 Mixed Peas.

No. 1 Buckwheat.

No. 3 Buckwheat.

No. 4 Buckwheat.

MOISTURE CONTENT BUCKWHEAT

It was moved by Mr. A. O. Hogg and seconded by Mr. E. D. Sullivan, that the Eastern Grain Standards Committee recommend that the moisture test

on straight grades of buckwheat be not more than 16 per cent and that all buckwheat having a moisture content of over 16 per cent shall be classed as tough.

Further, that all such buckwheat shall be graded and designated according to the grade requirements of the standards applicable to such buckwheat if it were not tough, and the word "tough" shall be made the first word of the grade designation.

The committee then adjourned to meet at the office of the Board of Trade, Montreal, at 10 a.m. Friday, November 21.

(Signed) F. D. TOLCHARD,
Secretary.

MINUTES OF AN ADJOURNED MEETING OF THE EASTERN COMMITTEE ON GRAIN STANDARDS HELD IN MONTREAL ON FRIDAY, NOVEMBER 21, 1930

The meeting convened at 10.05 a.m. in the Council Chamber, Board of Trade building, Montreal.

The following members of the committee were present: Messrs. C. M. Hamilton, Commissioner, Board of Grain Commissioners; A. A. Bowen, T. A. Climo, H. A. Gilroy, J. J. Page, E. J. Sullivan, C. B. Watts, J. M. Vittie, N. Wight, and H. C. Beatty, Secretary.

The following officials of the Board of Grain Commissioners were also in attendance: Messrs. J. D. Fraser, Chief Inspector of Grain, and J. Rayner, Secretary, Board of Grain Commissioners.

Commissioner C. M. Hamilton acted as chairman of the meeting and Mr. H. C. Beatty as secretary.

The chairman explained to the meeting that the purpose of the meeting was to set standard samples of United States grain passing through Montreal and standard samples for any grades of Canadian grain grown in the Eastern Division, samples of which were not available in Toronto, but which samples might be available in Montreal.

MOISTURE CONTENT BUCKWHEAT

Mr. C. B. Watts addressed the meeting on the question of the moisture content of buckwheat and after some discussion moved that the resolution passed by the committee at Toronto on November 20 be modified to read that buckwheat containing over 19 per cent moisture be graded "damp." There was no seconder for this motion.

The meeting then adjourned to the office of the Grain Inspector, St. Nicholas building.

The committee examined the samples submitted by the Grain Inspector and standard samples were set for the following grades:—

Grain of U.S.A. Origin—

No. 1 Hard Winter Wheat.	No. 2 Amber Durum Wheat.
No. 2 Hard Winter Wheat.	No. 2 Mixed Durum Wheat.
No. 3 Hard Winter Wheat.	No. 2 Rye Western.
No. 2 Red Durum Wheat.	

Grain Grown in Eastern Division—

No. 4 White Oats.

APPEAL TRIBUNAL, TORONTO

It was pointed out by Mr. Gilroy that in the constitution of the Appeal Tribunal at Toronto no representative of the growers had been appointed.

It was moved by E. J. Sullivan and seconded by J. J. Page, that recommendation be forwarded to the Board of Grain Commissioners that Mr. Gilroy be appointed to this tribunal.

This resolution was passed by the committee.

The meeting then adjourned.

(Signed) H. C. BEATTY,
Secretary.

GRAIN SURVEY BOARDS

The Grain Survey Boards as constituted under the Canada Grain Act, 1925, as amended 1929, continued in office until August 31, 1930, but no surveys were held during the crop year under review.

The members of these boards were:—

Toronto.—D. O. Ellis, A. O. Hogg, R. H. Goode, D. A. Campbell, E. D. Sullivan, C. B. Walls, R. I. Braiden, C. W. Brand, Murray Brown, and W. H. McCarthy. F. D. Tolchard, secretary.

Montreal.—C. R. Esdaile, chairman; T. A. Climo, A. Chaplin, R. Hume, and J. M. Vittie. H. C. Beatty, secretary.

BOARDS OF GRAIN APPEAL

The Boards of Grain Appeal as constituted under the Canada Grain Act 1925, amended 1929, continued in operation until August 31, 1930.

The members of these boards were:—

Winnipeg.—Geo. Serls, R. C. Steele, P. V. Wright, Grant Hammond, A. F. Moore, G. J. Wells, J. McMahon, S. C. Swanton, and W. Duncan. C. N. Bell, secretary.

Calgary.—Geo. Hill, chairman; W. McLeod, S. J. Ewing, A. Piersen, J. A. Harris, E. J. Munson, C. W. Roenish, D. L. McLean, and W. W. Cumming. D. O. McHugh, secretary.

Edmonton.—C. R. Manahan, chairman; W. H. Boyle, L. T. Ingram, F. J. Wolfe, C. C. Gillies, R. H. Settle, A. Fraser, J. A. Kyle, and J. W. Allen. John Blue, secretary.

REPORTS OF THE APPEAL BOARDS FOR THE YEAR ENDED AUGUST 31, 1930

	Number of Appeals Held	Number of Appeals allowed		Number of Appeals Failed
		Raised	Lowered	
Winnipeg.....	860	149	3	708
Calgary.....	1,016	208	40	768
Edmonton.....	818	128	5	685

GRAIN APPEAL TRIBUNALS

The Canada Grain Act 1930, section 47, which came into effect on September 1, 1930, provided for the constitution of Grain Appeal Tribunals in place of the Grain Survey Boards and Boards of Grain Appeal constituted under the Canada Grain Act, 1925, as amended in 1929.

Grain Appeal Tribunals have been constituted by the board at the following points: Winnipeg, Calgary and Edmonton in the Western Division, and at Toronto and Montreal in the Eastern Division; the members of these tribunals are as follows:—

Winnipeg.—Geo. Serls, chairman; J. Murray, P. V. Wright, Grant Hammond, A. F. Moore, G. J. Wells, J. McMahon, and S. C. Swanton. C. N. Bell, secretary.

Calgary.—Geo. Hill, chairman; W. McLeod, S. J. Ewing, Arthur Piersen, J. A. Harris, E. J. Munson, C. W. Roenisch, D. L. McLean, and W. W. Cumming. F. W. Mackenzie, secretary.

Edmonton.—C. R. Manahan, chairman; W. H. Boyle, L. T. Ingram, F. J. Wolfe, C. C. Gillies, R. H. Settle, A. Fraser, J. A. Kyle, and J. W. Allen. John Blue, secretary.

Toronto.—A. O. Hogg, chairman; C. W. Baird, H. H. Campbell, Geo. Heimbecher, W. H. McCarthy, E. D. Sullivan, R. I. Braiden, D. O. Ellis, G. E. McConney, and C. B. Watts. F. D. Tolchard, secretary.

Montreal.—C. B. Esdaile, chairman; B. J. Bolan, R. Hume, A. Chaplin, and T. B. Earle. H. C. Beatty, secretary.

APPENDIX 2

REPORT OF CHIEF INSPECTOR OF GRAIN

WINNIPEG, Man., October 27, 1930.

The Secretary,
Board of Grain Commissioners,
Winnipeg, Man.

DEAR SIR,—Herewith my annual report for the crop year August 1, 1929, to July 31, 1930.

WESTERN INSPECTION DIVISION

The crop of the year 1929 was the smallest produced in the Western Inspection Division since the crop of 1919. The seeding of the crop of 1929, both wheat and coarse grains, was completed by the end of May, with sufficient moisture for germination, but owing to an unusually dry fall in 1928, and light snow fall during the winter, the ground had little or no subsoil moisture. Cool to cold weather in the spring, and continuous hot, dry weather during the growing season seriously affected the crop over large areas in all three Prairie Provinces. The result was a very short crop, but the wheat produced was of excellent quality, and high grade.

The total inspections for the crop year 1929-1930 in the Western Division amounted to 191,204 cars as against 413,508 cars for the previous year.

The total inspections from August 1, 1929, to July 31, 1930, are made up as follows:—

	Cars	Percentage
Wheat	161,680	84.56
Oats	8,700	4.55
Barley	14,932	7.81
Flax seed	1,412	0.74
Rye	3,970	2.08
Mixed grain	403	0.21
Buckwheat	2	0.00
Screenings	105	0.05
	<hr/> 191,204	<hr/> 100.00

The grades of wheat show as follows:—

	Cars	Percentage
1 hard, 1°, 2°, and 3°	140,822	87.10
No. 4, 5, 6 and feed	5,817	3.60
No grade, tough or damp	2,331	1.44
Other grades	2,971	1.84
Amber Durum (All grades)	8,116	5.02
White Spring (All grades)	1,028	0.64
Kota wheat (All grades)	2	0.00
Winter wheat (All grades)	587	0.36
Red Durum (All grades)	6	0.00
	<hr/> 161,680	<hr/> 100.00

The grades of Oats show as follows:—

	Cars	Percentage
Nos. 1, 2 and 3 C.W.	3,074	35.33
Extra 1 feed, 1 feed and 2 feed	5,141	59.09
No grade, tough or damp	179	2.06
Other grades	306	3.52
	<hr/> 8,700	<hr/> 100.00

The grades of Barley show as follows:—

	Cars	Percentage
Nos. 1 C.W., 2 C.W. and 3 Ex. C.W.	1,886	12.63
Nos. 3 and 4 C.W.	10,317	69.09
Feed and rejected	95	0.64
No grade, tough or damp	575	3.85
Other grades	2,059	13.79
	<hr/> 14,932	<hr/> 100.00

The Grades of Flax Seed show as follows:—

	Cars	Percentage
No. 1 N.W. and 2 C.W.	1,391	98.51
No. 3 C.W.	6	0.43
No grade, tough or damp	4	0.28
Other grades	11	0.78
	<hr/> 1,412	<hr/> 100.00

The grades of Rye show as follows:—

	Cars	Percentage
No. 1, 2 and 3 C.W.	3,631	91.46
No grade, tough or damp	72	1.81
Other grades	267	6.73
	<hr/> 3,970	<hr/> 100.00

The number of cars of grain inspected at the various Inspection Points, were as follows:—

	Cars	Percentage
Winnipeg	113,046	59.12
Calgary	23,393	12.24
Edmonton	19,920	10.42
Moose Jaw	16,146	8.45
Saskatoon	14,812	7.74
Medicine Hat	2,450	1.28
Superior	265	0.14
Vancouver	1,149	0.60
Prince Rupert	23	0.01
	<hr/> 191,204	<hr/> 100.00

SUMMARY OF CARS REINSPECTED AT WINNIPEG

	Cars	Percentage
Left as graded	6,285	76.39
Grades raised	1,246	15.14
Grades lowered	149	1.81
Dockage raised	110	1.34
Dockage lowered	438	5.32
	<hr/> 8,228	<hr/> 100.00

SUMMARY OF CARS REINSPECTED AT CALGARY

	Cars	Percentage
Left as graded	2,315	52.85
Grades raised	768	17.55
Grades lowered	309	7.07
Dockage raised	464	10.61
Dockage lowered	524	11.92
	<hr/> 4,380	<hr/> 100.00

SUMMARY OF CARS REINSPECTED AT MOOSE JAW

	Cars	Percentage
Left as graded	789	62.08
Grades raised	358	28.16
Grades lowered	54	4.25
Dockage raised	13	1.03
Dockage lowered	57	4.48
	<hr/> 1,271	<hr/> 100.00

SUMMARY OF CARS REINSPECTED AT SASKATOON

	Cars	Percentage
Left as graded	974	79.18
Grades raised	148	12.01
Grades lowered	16	1.31
Dockage raised	35	2.85
Dockage lowered	57	4.65
Total reinspections	1,230	100.00

SUMMARY OF CARS REINSPECTED AT EDMONTON

	Cars	Percentage
Left as graded	3,331	75.27
Grades raised	714	16.13
Grades lowered	73	1.65
Dockage raised	136	3.07
Dockage lowered	172	3.88
Total reinspections	4,426	100.00

SUMMARY OF CARS REINSPECTED AT MEDICINE HAT

	Cars	Percentage
Left as graded	43	78.18
Grades raised	7	12.72
Grades lowered	2	3.64
Dockage raised	1	1.82
Dockage lowered	2	3.64
Total reinspections	55	100.00

SUMMARY OF CARS REINSPECTED AT SUPERIOR, WIS.

	Cars	Percentage
Left as graded	13	72.23
Grades raised	3	16.66
Grades lowered .....	...	...
Dockage raised .....	...	...
Dockage lowered	2	11.11
Total reinspections	18	100.00

RECAPITULATION OF REINSPECTIONS

	Cars	Percentage	Percentage of total inspections
Left as graded	13,750	70.13	7.19
Grades raised	3,244	16.54	1.69
Grades lowered	603	3.07	0.32
Dockage raised	759	3.87	0.40
Dockage lowered	1,252	6.39	0.65
Total reinspections	19,608	100.00	10.25
Total reinspections	19,608	...	10.25
Left as graded	13,750	7.19	...
Total changes	5,858	3.06	10.25

NUMBER OF CARS APPEALED AT WINNIPEG

	Cars	Percentage
Left as graded originally	729	82.37
Graded raised	153	17.29
Grades lowered	3	0.34
Dockage raised	0	...
Dockage lowered	0	...
Total appeals	885	100.00

TRADE AND COMMERCE

NUMBER OF CARS APPEALED AT CALGARY

	Cars	Percentage
Left as graded originally	756	75.14
Grades raised	140	13.92
Grades lowered	36	3.58
Dockage raised	14	1.39
Dockage lowered	60	5.97
Total appeals	1,006	100.00

NUMBER OF CARS APPEALED AT EDMONTON

	Cars	Percentage
Left as graded originally	689	83.62
Grades raised	127	15.42
Grades lowered	2	0.24
Dockage raised	1	0.12
Dockage lowered	5	0.60
Total appeals	824	100.00

RECAPITULATION OF APPEALS

	Cars	Percentage of Total Inspections. Left and Changed	Percentage of Total Inspections
Total cars appealed.....	2,715	.....	1.420
Grades left on appeal.....	2,174	1.137	1.420
Grades changed on appeal.....	541	0.283	.....
Grades changed on appeal.....	541	.....	0.283
Grades raised.....	420	0.220	.....
Grades lowered.....	41	0.021	.....
Dockage raised.....	15	0.008	.....
Dockage lowered.....	65	0.034	0.283

RECEIPTS AND SHIPMENTS OF GRAIN AT FORT WILLIAM, PORT ARTHUR,
VANCOUVER, PRINCE RUPERT, AND VICTORIA DURING THE YEAR AUGUST
1929, TO JULY 31, 1930

FORT WILLIAM AND PORT ARTHUR

	Receipts bushels	Shipments bushels
Wheat.....	135,339,685	146,319,348
Oats.....	4,980,266	10,562,818
Barley.....	17,175,866	7,331,755
Rye.....	4,862,785	1,476,339
Flax seed.....	1,078,204	1,025,504
Mixed grain.....	552,071	770,607
Oat scalplings.....	716,563	2,300,053
	164,705,440	169,786,424

VANCOUVER

Wheat.....	52,953,938	49,762,238
Oats.....	765,095	109,547
Barley.....	103,424	17,310
Rye.....	122,585	.....
Flax seed.....	2,386	.....
Mixed grain.....	36,709	1,365
Oat scalplings.....	82,484	25,735
	54,066,621	49,916,195

GRAIN COMMISSION

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PRINCE RUPERT

Wheat.....		
Oats.....	1,118,440	272,533
Oat scalplings.....	395
	504	353
	1,119,339	272,886

VICTORIA

Wheat.....		
Oat scalplings.....		5,550
		1,612
		7,162

EASTERN INSPECTION DIVISION

RECEIPTS AND EXPENDITURES, YEAR ENDING JULY 31, 1930

	Montreal		Toronto		Total	
	\$	cts.	\$	cts.	\$	cts.
<i>Receipts—</i>						
Inspection fees.....	18,830	96	718	00	19,548	96
Sampling fees.....	8,399	12	384	55	8,783	67
Samples sold.....	437	52	53	90	491	42
Overtime.....	464	40	.....	.....	464	40
Cargo certs. split.....	1,084	80	.....	.....	1,084	80
Sundries.....	472	03	4	15	476	18
	29,688	83	1,160	60	30,849	43
<i>Expenditures—</i>						
Salaries.....	29,459	75	4,950	50	34,410	25
Rent.....	2,313	00	660	00	2,973	00
Sundries.....	2,307	45	465	00	2,772	45
Printing and stationery.....	163	75	11	59	175	34
	34,243	95	6,087	09	40,331	04

RECAPITULATION

	Receipts		Expenditures			
	\$	cts.	\$	cts.		\$ cts.
Montreal.....	29,688	83	34,243	95	Deficit	4,555 12
Toronto.....	1,160	60	6,087	09		4,926 49
	30,849	43	40,331	04	"	9,481 61
Cost of Eastern Standards Board.....						346 60
Total Deficit.....						9,828 21

JAS. D. FRASER,
Chief Inspector.

APPENDIX 3

REPORT OF REGISTRAR

WINNIPEG, MAN., November 27, 1930.

J. RAYNER, Esq.,
Secretary, Board of Grain Commissioners,
Winnipeg, Man.

DEAR SIR,—I herewith submit a statement showing the work of the Registration Department for the crop year ended August 31, 1930:—

Total bushels registered		Total bushels registered for cancellation	
Wheat	168,187,006.20	Wheat	170,606,906.50
Oats	6,661,803.19	Oats	12,776,688.20
Barley	19,430,827.09	Barley	10,511,505.39
Flax	1,162,723.16	Flax	1,035,583.40
Mixed grain	859,238.08	Mixed grain	956,719.10
Rye	5,628,269.34	Rye	1,655,550.41
Oat scalps	849,755.06	Oat scalps	391,127.23
Corn	347,482.48	Corn	340,498.32

Yours truly,

W. T. TODD,
Deputy Registrar.

APPENDIX 4

REPORT OF CHIEF WEIGHMASTER

FORT WILLIAM, ONT., November 26, 1930.

The Secretary,
Board of Grain Commissioners,
Winnipeg, Man.

DEAR SIR,—Herewith is my annual report for the crop year ending July 31, 1930:—

ELEVATORS

During the crop year this branch maintained staffs at one hundred and two (102) licensed elevators in the Western Division as follows: thirty-three (33) at Port Arthur and Fort William, twenty-two (22) at the Pacific coast and forty-seven (47) at interior points.

The handling and weighing equipment in the above elevators has been under constant supervision and the upkeep of the different plants has been satisfactory.

SCALES

In the thirty-three (33) elevators operating at Port Arthur and Fort William there are two hundred and three (203) scales of varying capacity up to seventy-five (75) tons and with the services of a scale mechanic employed by the elevator companies, these scales have been kept in good repair.

In the Government interior elevators at Moose Jaw, Saskatoon, Calgary, Edmonton and at the terminal elevators at Vancouver, Prince Rupert, Victoria and New Westminster, loading to deep-sea berths, there are ninety-four (94) scales, making a total of two hundred and ninety-seven (297) scales under my supervision, which have been inspected twice during the year. The semi-annual test is made to insure the continued accuracy of the scales, for which there is no charge. Under my authority as elevator scale inspector, the regular annual inspection was carried out as provided for by the Weights and Measures Act, for which certificates of verification were issued and fees collected and remitted to the following district inspectors of Weights and Measures:—

J. B. Attridge, Winnipeg	\$2,267 70
E. B. Lorrimer, Regina	79 60
W. Wallace, Saskatoon	77 60
A. E. H. Cable, Calgary	75.30
J. M. McLeod, Edmonton	68 80
A. H. Dutton, Vancouver	651 45
	<hr/>
	\$3,220 45

(Detailed statement of above attached.)

EASTERN DIVISION

Staffs were maintained on a fees basis at seven (7) licensed elevators under the supervision of Mr. Bowen of Montreal.

The scale inspection in the licensed elevators in the Eastern Division was carried out by Mr. A. A. Bowen of Montreal, under his authority as Weights and Measures Inspector.

WEIGHING STAFF

At the commencement of the crop year August 1, 1929, there were in the Western Weighing Division two hundred and seventy-five (275) employees, staffs being maintained at the following points:—

Ontario.—Port Arthur, Kenora, Fort William, and Keewatin.

Manitoba.—Winnipeg and Portage la Prairie.

Saskatchewan.—Saskatoon, Moose Jaw, and Facteria.

Alberta.—Medicine Hat, Edmonton, and Calgary.

British Columbia.—Vancouver, Prince Rupert, New Westminster, and Victoria.

During the crop year the following reductions in the staff took place:—

Superannuated.....	1
Deceased.	3
Dismissed.	1
Resigned.....	4
Laid off.....	7
	<hr/>
	16
	<hr/>

while the additions totalled ten (10), representing new appointments, re-engagements and the filling of some of the above vacancies. The staff at the close of the crop year, July 31, 1930, totalled two hundred and sixty-nine (269) employees.

TRADE AND COMMERCE

LEAK AND SEAL INSPECTION

Following is a report of the work of the leak and seal inspectors stationed in the railway yards at Winnipeg for the crop year ending July 31, 1930:—

	Cars Inspected	Cars Leaking	Cars with Missing or Defective Seals
Canadian Pacific Railway.....	70,014	15,238	2,375
Canadian National Railway.....	64,830	10,844	664

SUMMARY

Cars inspected.....	134,844
Cars leaking and defective.....	26,082
Cars with missing or defective seals.....	3,039
Condition reports completed for grain trade.....	18,181

During the crop year, eighteen thousand one hundred and eighty-one (18,181) condition reports were completed for the grain trade. This service is of great assistance to shippers in the collection of claims for shortages.

WEIGHING

Following are the quantities of grain which were weighed into and out of the elevators in the Western Division during the crop year ending July 31, 1930:—

RECEIPTS AND SHIPMENTS

GROSS HANDLINGS OF GRAINS AT FORT WILLIAM-PORT ARTHUR ELEVATORS
CROP YEAR 1929-30

Grain	Cars	Receipts	Lake	Cars	Rail and milled	Transfers
		bush.	bush.		bush.	bush.
Wheat.....	103,847	146,459,079	144,395,138	288½	1,938,521	7,581,943
Oats.....	3,098½	7,329,953	8,437,491	856½	1,622,763	1,638,525
Barley.....	12,028½	20,397,135	6,962,928	217	369,205	3,048,761
Flax.....	989½	1,252,630	994,114	36	51,753	3,653
Rye.....	3,620½	5,158,107	1,474,840	1	1,500	173,694
Mixed grain.....	479	662,090	708,343	36	62,264	228,429
Corn.....	25	50,869			35,923	14,929
Total.....	124,088	181,309,863	162,972,854	1,435	4,081,929	12,689,934
		tons	tons		tons	tons
Screenings.....	375½	12,842	83,720	662	23,406	6,411

VANCOUVER

RECEIPTS

Grain	Number of cars	Gross bushels
Wheat.....	37,142	55,172,737-10
Oats.....	398	945,574-26
Barley.....	78½	118,900-45
Flaxseed.....	1½	2,790-00
Rye.....	98½	154,988-46
Corn.....	567	1,076,345-20
Mixed grain.....	27	1,964,320 lbs.
Screenings and other grain.....	344½	23,829,160 "
U.S.A. wheat.....	299	422,482-30
U.S.A. barley.....	13	22,297-14

GRAIN COMMISSION

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SHIPMENTS

	Ocean gross bushels	Rail		Transfers	
		Number of cars	Gross bushels	Number of cars	Gross bushels
Wheat.....	49,515,531-50	187½	246,827-50	867	1,259,954-20
Oats.....	84,139-14	11	25,407-12	92½	186,271-21
Barley.....		12½	17,310-00	12	16,479-33
Flaxseed.....					287-23
Rye.....				18	33,037-28
Corn.....		108	150,131-04	230	336,244-46
Mixed grain.....	40,000 lbs.	½	28,250 lbs.	2½	124,330 lbs.
Screenings and other grain.....	56,000 "	384½	24,137,690 "	338	21,497,180 "
U.S.A. wheat.....	101,266-40		166-40	41	67,652-20
U.S.A. barley.....					

GROSS RECEIPTS AND SHIPMENTS AT VICTORIA ELEVATORS, CROP YEAR, 1929-30

RECEIPTS

Grain	Number of cars	Gross bushels
Wheat.....		
Argentine corn.....	1	99,540-00
		38,898-52

SHIPMENTS

Grain	Rail		Transfers	
	Number of cars	Gross bushels	Number of cars	Gross bushels
Wheat.....	1	5,550-10	1	1,114-10
Barley.....		47-24		
Corn.....	5	28,784-16		
Argentine corn.....				
Recleaned screenings.....		1,250 lbs.		
Oat scalplings.....	1	54,820 "		

GROSS RECEIPTS AND SHIPMENTS AT PRINCE RUPERT, CROP YEAR, 1929-1930

RECEIPTS

Grain	Number of cars	Gross bushels
Wheat.....		
Oats.....	842	1,141,732-20
Oat scalplings.....		395-10
		17,120 lbs.

SHIPMENTS

	Rail	Ocean
Wheat.....		
Oat scalplings.....	12,000 lbs.	272,533-20

TRADE AND COMMERCE

GROSS RECEIPTS AND SHIPMENTS INTERIOR GOVERNMENT ELEVATORS,
CROP YEAR, 1929-30

	RECEIPTS			SHIPMENTS		
	Number of cars	Bushels	Tons	Number of cars	Bushels	Tons
Saskatoon.....	2,088	2,845,819	34	1,915	2,688,475	1,600
Moose Jaw.....	2,065½	3,149,254	69	2,361	4,001,911	69
Edmonton.....	1,963	2,902,640	8	1,788	2,833,128	1,206
Calgary.....	2,131	3,111,207	976	1,808½	3,114,006	2,146
	8,247½	12,008,920	1,087	7,872½	12,637,520	5,021

TOTAL CARS WEIGHED AT INTERIOR POINTS, CROP YEAR 1929-1930

	Bushels	Cars
Kenora.....	1,941,190	1,294
Keewatin.....	6,097,510	4,065
Winnipeg.....	20,010,100	13,519
Portage la Prairie.....	1,810,176	1,441
Saskatoon.....	6,174,200	4,583
Moose Jaw.....	7,123,100	4,885
Calgary.....	7,110,230	5,072
Edmonton.....	807,100	536
Medicine Hat.....	4,010,170	2,740
Factoria.....	102,130	72
Totals.....	55,185,906	38,207

REPORT OF CARS ARRIVING AT DESTINATION WITH MISSING OR DEFECTIVE
SEALS—CROP YEAR ENDING JULY 31, 1930

Month	Canadian Pacific Railway	Canadian National Railway	Total
1929—August.....	234	97	331
September.....	1,094	338	1,432
October.....	673	160	833
November.....	297	100	397
December.....	155	51	206
1930—January.....	109	35	144
February.....	105	12	117
March.....	111	20	131
April.....	104	22	126
May.....	166	31	197
June.....	319	69	388
July.....	209	47	256
Totals.....	3,576	982	4,558

SUMMARY

Via Canadian Pacific Railway.....	3,576
Via Canadian National Railway.....	982
Total.....	4,558

REPORT OF CARS LEAKING ON ARRIVAL AT DESTINATION IN THE WESTERN
WEIGHING DIVISION—CROP YEAR ENDING JULY 31, 1930

CANADIAN PACIFIC RAILWAY

Month	Door post	End	Draw bar	Side	King bolt	Floor	Grain door	Total
1929—August.....	78	320	24	158	.....	15	66	661
September.....	343	1,771	138	1,104	8	41	239	3,644
October.....	456	1,863	138	1,541	8	104	278	4,388
November.....	149	714	54	589	1	15	168	1,690
December.....	61	228	18	219	3	11	84	624
1930—January.....	23	83	12	85	.....	9	63	275
February.....	33	107	22	151	.....	6	68	387
March.....	28	113	15	75	2	11	51	295
April.....	28	178	15	171	1	20	63	476
May.....	48	318	15	151	.....	14	66	612
June.....	163	719	57	367	1	30	145	1,482
July.....	88	537	49	429	1	21	110	1,235
	1,498	6,951	557	5,040	25	297	1,401	15,769

CANADIAN NATIONAL RAILWAY

Month	Door post	End	Draw bar	Side	King bolt	Floor	Grain door	Total
1929—August.....	38	99	8	116	.....	3	56	320
September.....	151	531	52	881	.....	24	257	1,896
October.....	222	842	97	967	4	105	200	2,437
November.....	67	369	60	441	2	203	166	1,308
December.....	22	234	21	170	.....	76	82	605
1930—January.....	13	141	7	97	1	11	60	330
February.....	18	119	5	148	2	8	54	354
March.....	20	107	19	71	.....	12	55	284
April.....	67	59	28	93	3	3	63	316
May.....	43	389	29	166	2	20	101	750
June.....	76	548	74	571	1	46	189	1,505
July.....	85	246	34	388	4	10	99	866
	822	3,684	434	4,109	19	521	1,382	10,971

SUMMARY

Total leaking cars via C.P.R.....	15,769
Total leaking cars via C.N.R.....	10,971
Total.....	26,740
Detected leaking in yards at Fort William.....	11,417
Transferred enroute account of bad order.....	259

SHORTAGES—CARS

Every precaution is taken to maintain the integrity of Government weights at the terminal elevators, but complaints of shortages on the outturn of cars come to us, in the majority of which, upon investigation, the cause is shown to be beyond the jurisdiction of the officers who supervise the weighing and in a great many cases it is apparent that these discrepancies are due to errors at loading, loss in transit or other unknown causes. In some cases investigation has shown the unloading elevator or the railways were responsible and settlement was secured or recommended.

SHORTAGES—VESSELS

Reported shortages on the outturns of vessel cargoes unloaded at Eastern Canadian and American ports continue to show about the same average:—

	Canadian ports	American ports
	Per thousand bushels	Per thousand bushels
Wheat.....	23.4 short	16.37 short
Oats.....	30.04 "	.....
Barley.....	29.32 "	2.39 over
Flaxseed.....	15.12 "	80.91 short
Rye.....	28.09 "	39.47 over

Complaints were received of serious shortages on some individual cargoes during the season, the loading and weighing of which were thoroughly investigated without finding any trace of or cause for the reported shortages at the loading elevators.

No outturns are received from cargoes loaded at the Pacific coast ports.

STATEMENT—SHOWING THE SHIPMENTS OF GRAIN FROM FORT WILLIAM, PORT ARTHUR DURING THE CROP YEAR 1929-1930

	Canadian vessels 539 cargoes	United States vessels 230 cargoes	British foreign 5 cargoes	Total 774 cargoes
	bush.	bush.	bush.	bush.
Wheat.....	78,909,301	65,058,574	308,653	144,276,528
Oats.....	8,609,463	.....	226,994	8,836,457
Barley.....	5,387,456	1,727,065	70,000	7,184,521
Flaxseed.....	648,672	345,442	.....	994,114
Rye.....	1,521,717	105,000	.....	1,626,717
Oat scalplings.....	1,181,272	821,431	.....	2,002,703
Screenings.....	17,288 tons	32,329 tons	.....	49,617 tons
Totals.....	96,257,881 bush. 17,288 tons	68,057,512 bush. 32,329 tons	605,647	164,921,040 bush. 49,617 tons

ANNUAL WEIGH-UP

All the stocks in elevators operating under Public Terminal Licences were weighed up in accordance with the Act, also the stocks of the four top grades of wheat in elevators operating under private elevator licences in the Western Division, the weigh-up of the four top grades of wheat in the private terminals being necessary to determine the quantity in store prior to August first when section 140, subsection 1 of the Canada Grain Act, became effective. Statements were prepared of the correct quantities of each grade in store in the public terminals and of the four top grades of wheat in the private terminals and forwarded to the Board, the stocks in both public and private elevators being exceptionally heavy.

During the crop year a number of elevators operating under public and private licences in the Eastern and Western Divisions were weighed up by request, the usual charge being made for this service.

S. M. CAPON,
Chief Weighmaster.

BOARD OF GRAIN COMMISSIONERS FOR CANADA—CHIEF WEIGHMASTER'S OFFICE

REPORT OF SCALES INSPECTED IN ELEVATORS IN WESTERN DIVISION, YEAR 1929-1930

Name of Elevator	Date of Construction	Storage	Number of Scales	Make	Capacity	Shipping	Receiving	Date Installed	Inspection Weights and Measures	Fees	Board Inspection	Special Inspections
PUBLIC TERMINALS		bush.			lb.					\$ cts.		
<i>Fort William—</i> Grand Trunk Pacific.....	1910	5,750,000	10 hoppers.....	Gurney.....	120,000	5	5	1910	Annually...	120 00	Semi-annually..	
<i>Port Arthur—</i> Canadian Government.....	1913	3,250,000	10 hoppers..... 1 automatic.....	Fairbanks..... Fairbanks.....	120,000 180	5	5	1913	Annually...	120 00 2 50	Semi-annually..	
Saskatchewan Pool No. 7.....	1928	6,900,000	11 platform.....	Fairbanks.....	600				Annually...	1 00	Semi-annually..	
Saskatchewan Pool No. 6.....	1920	7,398,800	9 hoppers.....	Gurney.....	150,000	6	5	1928	Annually...	148 50	Semi-annually..	
Saskatchewan Pool No. 4.....	1917	6,568,410	8 hoppers.....	Fairbanks.....	120,000	5	4	1920	Annually...	108 00	Semi-annually..	
<i>Moose Jaw—</i> Canadian Government.....	1914	3,250,000	6 hoppers..... 2 automatic..... 2 platform.....	Gurney..... Fairbanks..... Fairbanks.....	120,000 180 1,200	4	4	1917	Annually...	96 00	Semi-annually..	1 special test.
<i>Saskatoon—</i> Canadian Government.....	1914	3,250,000	6 hoppers..... 2 automatic..... 1 platform.....	Fairbanks..... Fairbanks..... Fairbanks.....	120,000 180 600	3	3	1914 1915 1915	Annually... Annually... Annually...	72 00 4 00 3 00	Semi-annually.. Semi-annually.. Semi-annually..	1 special test.
<i>Calgary—</i> Canadian Government.....	1915	2,500,000	6 hoppers..... 1 automatic..... 1 platform.....	Gurney..... Fairbanks..... Fairbanks.....	120,000 180 600	3	3	1914 1915 1915	Annually... Annually... Annually...	72 00 4 00 1 00	Semi-annually..	2 special tests.
<i>Edmonton—</i> Canadian Government.....	1924	2,500,000	5 hoppers..... 3 automatic..... 1 platform.....	Gurney..... Richardson..... Fairbanks.....	120,000 180 500	3	2	1924 1925 1925	Annually... Annually... Annually...	72 00 2 30 1 00	Semi-annually..	1 special test.
<i>Vancouver, B.C.—</i> Pacific Terminal.....	1916	2,100,000	3 hoppers..... 3 automatic..... 3 automatic..... 1 platform..... 3 hoppers.....	Fairbanks..... Richardson..... Richardson..... Fairbanks..... Fairbanks.....	120,000 10,000 180 1,000 72,000	3	3	1916 1916 1916 1922 1923	Annually... Annually... Annually... Annually... Annually...	36 00 54 00 9 45 1 00 30 00	Semi-annually.. Semi-annually.. Annually... Annually... Semi-annually..	1 special test.
<i>Victoria, B.C.—</i> Panama Pacific.....	1928	1,000,000	1 hopper..... 2 hoppers.....	Gurney..... Gurney.....	120,000 72,000	2	1	1928 1928	Annually... Annually...	12 00 20 00	Semi-annually.. Semi-annually..	
		44,467,210								1,059 75		

BOARD OF GRAIN COMMISSIONERS FOR CANADA—CHIEF WEIGHMASTER'S OFFICE—REPORT OF SCALES INSPECTED IN ELEVATORS IN WESTERN DIVISION, YEAR 1929-1930—*Continued*

Name of Elevator	Date of Construction	Storage	Number of Scales	Make	Capacity	Shipping	Receiving	Date Installed	Inspection Weights and Measures	Fees	Board Inspection	Special Inspections
PRIVATE TERMINALS												
<i>Fort William—</i> Northland "D"	1896	bush.	3 hoppers	Fairbanks	96,000	3		1896	Annually	36 00	Semi-annually	
	1908		4 hoppers	Gurney	96,000	4		1908	Annually	48 00	Semi-annually	
	1908		4 hoppers	Gurney	120,000		4	1914	Annually	40 00	Semi-annually	
	1914		5 hoppers	Gurney	60,000	5		1914	Annually	96 00	Semi-annually	
	1903		8 hoppers	Fairbanks	100,000	4		1903	Annually	26 00	Semi-annually	
Saskatchewan Pool No. 8.	1903	2,500,000	2 hoppers	Fairbanks	72,000	2		1903	Annually	90 00	Semi-annually	
	1904		8 hoppers	Fairbanks	96,000	4		1904	Annually	36 00	Semi-annually	
	1907	1,750,000	3 hoppers	Fairbanks	96,000	2		1914	Annually	48 00	Semi-annually	
	1914	2,850,000	4 hoppers	Fairbanks	120,000	2		1914	Annually	6 00	Semi-annually	
	1923		4 hoppers	Fairbanks	120,000	2		1915	Annually	12 00	Semi-annually	
Western—2nd Unit. Western—3rd unit.	1915	250,000	1 hopper	Fairbanks	30,000			1916	Annually	6 00	Semi-annually	
	1916		1 hopper	Fairbanks	96,000		S. & R.	1916	Annually	12 00	Semi-annually	
	1908	3,000,000	2 hoppers	Fairbanks	30,000	2		1908	Annually	48 00	Semi-annually	
	1909	1,750,000	3 hoppers	Gurney	120,000		4	1914	Annually	36 00	Semi-annually	
	1911		3 hoppers	Gurney	120,000	2		1911	Annually	36 00	Semi-annually	
Consolidated	1912	35,000	1 hopper	Fairbanks	12,000		S. & R.	1912	Annually	3 50	Semi-annually	
McCabes	1912	20,000	1 hopper	Gurney	12,000		S. & R.	1912	Annually	3 50	Semi-annually	
Bole	1912		1 platform	B.S. & M.	1,200			1912	Annually	1 50	Semi-annually	
Fort William "F"	1913	1,750,000	1 automatic	Richardson	180		Bagger	1913	Annually	2 55	Semi-annually	
			6 hoppers	Gurney	96,000		3	1913	Annually	72 00	Semi-annually	
			3 hoppers	Gurney	120,000		3	1913	Annually	36 00	Semi-annually	
Phoenix	1916	1,000,000	3 hoppers	Gurney	120,000	2		1916	Annually	36 00	Semi-annually	
			1 hopper	Fairbanks	84,000	1		1926	Annually	12 00	Semi-annually	
National Feed	1918	85,000	1 track	Gurney	200,000		S. & R.	1918	Annually	2 00	Semi-annually	
			1 hopper	Gurney	30,000			1918	Annually	2 45	Semi-annually	
			1 automatic	Richardson	180		Bagger	1918	Annually	1 50	Semi-annually	
			1 platform	Champion	1,200			1918	Annually	12 00	Semi-annually	
	1921	180,000	1 hopper	Fairbanks	84,000		S. & R.	1921	Annually	36 00	Semi-annually	
Ogilvie Feed Mill	1922	3,000,000	3 hoppers	Gurney	120,000	1		1922	Annually	36 00	Semi-annually	
Northwestern	1925		3 hoppers	Gurney	120,000	3		1925	Annually	36 00	Semi-annually	
Patterson's "O"	1927	2,500,000	4 hoppers	Gurney	150,000	2		1927	Annually	54 00	Semi-annually	
Paterson's Annex "K"	1914		1 hopper	Fairbanks	60,000	1			Annually	8 00	Semi-annually	
	1913	50,000	1 hopper	Fairbanks	30,000	1		1913	Annually	6 00	Semi-annually	
			1 hopper	Fairbanks	42,000		2	1913	Annually	54 00	Semi-annually	
Searle	1928	3,000,000	4 hoppers	Fairbanks	150,000			1928	Annually	8 00	Semi-annually	
<i>Port Arthur—</i> Manitoba Pool No. 2.	1905	1,375,000	1 hopper	Fairbanks	42,000	1		1905	Annually	24 00	Semi-annually	
			2 hoppers	Fairbanks	120,000		1	1923	Annually	36 00	Semi-annually	
	1908	1,500,000	3 hoppers	Fairbanks	96,000	3		1908	Annually	36 00	Semi-annually	
			3 hoppers	Fairbanks	120,000		3	1908	Annually	36 00	Semi-annually	
	1916	60,000	1 automatic	Richardson	60,000		S. & R.	1916	Annually	8 00	Semi-annually	
National Feed			1 platform	B.S. & M.	1,200		Bagger	1918	Annually	2 70	Semi-annually	
								1918	Annually	1 50	Semi-annually	

2 special tests.
1 special test.

Manitoba Pool No. 1.	1917	1,300,000	2 hoppers 1 hopper	Gurney	120,000	1	1917	Annually	24 00	Semi-annually	1 special test.
Union Terminal	1916	1,200,000	2 hoppers	Gurney	120,000	1	1916	Annually	12 00	Semi-annually	
				Fairbanks	90,000	1		Destroyed by fire.			
Saskatchewan Pool No. 5	1918	2,100,000	2 hoppers	Fairbanks	60,000	1	1918	Annually	48 00	Semi-annually	
Eastern Terminal	1918	3,500,000	4 hoppers	Gurney	120,000	2	1918	Annually	84 00	Semi-annually	1 special test.
Superior	1922	2,900,000	7 hoppers	Gurney	120,000	4	1922	Annually	36 00	Semi-annually	
Stewart	1923	2,500,000	3 hoppers	Gurney	120,000	2	1923	Annually	60 00	Semi-annually	
Bawlf	1923	2,350,000	5 hoppers	Fairbanks	120,000	3	1923	Annually	60 00	Semi-annually	
Reliance	1924	3,800,000	5 hoppers	Fairbanks	120,000	3	1924	Annually	60 00	Semi-annually	1 special test.
United Grain Growers "A"	1927	5,500,000	7 hoppers	Fairbanks	150,000	4	1927	Annually	94 50	Semi-annually	
Vancouver, B.C.—											
Burrard	1923	1,680,000	2 hoppers	Fairbanks	120,000	2	1923	Annually	24 00	Semi-annually	
			1 hopper	Gurney	60,000	1	1924	Annually	8 00	Semi-annually	
Vancouver Terminal	1924	2,250,000	2 hoppers	Gurney	120,000	2	1924	Annually	24 00	Semi-annually	
Alberta Pool No. 2	1924	1,650,000	1 hopper	Fairbanks	120,000	2	1924	Annually	60 00	Semi-annually	
			6 hoppers	Gurney	132,000	1	1925	Annually	73 00	Semi-annually	
Columbia	1924	150,000	2 hoppers	Gurney	150,000	1	1924	Annually	56 00	Semi-annually	
			1 hopper	Fairbanks	60,000	6	1924	Annually	60 00	Semi-annually	
Alberta Pool No. 1	1928	5,150,000	7 hoppers	Fairbanks	120,000	2	1928	Annually	16 00	Semi-annually	
Midland Pacific	1928	1,500,000	3 hoppers	Fairbanks	120,000	4	1928	Annually	12 00	Semi-annually	
			1 hopper	Fairbanks	120,000	3	1928	Annually	84 00	Semi-annually	
Prince Rupert, B.C.—						1	1928	Annually	36 00	Semi-annually	2 special tests.
Alberta Pool	1925	1,250,000	5 hoppers	Gurney	120,000	3	1925	Annually	60 00	Semi-annually	
New Westminster, B.C.—											
Fraser River	1929	700,000	3 hoppers	Gurney	120,000	1	1929	Annually	36 00	Semi-annually	
		71,385,000							2,160 70		
Public Terminals.											
Private terminals											
Total									\$ 1,059 75		
									2,160 70		
									\$ 3,220 45		

APPENDIX 5

REPORT OF GRAIN RESEARCH LABORATORY

WINNIPEG, January 20, 1931.

The Board of Grain Commissioners,
Winnipeg, Man.

SIRS,—I have the honour to submit the following statement showing the special investigations and work carried out by the laboratory during the past year:—

1. Survey of the Protein Content of the Contract Grades of Hard Red Spring Wheat grown in Western Canada during the crop year 1930-31.
2. The comparative values of Canadian and foreign wheats.
3. Tests of varieties of wheat.
 - (a) Bald Wheat.
 - (b) Minturki Wheat.
 - (c) Hope Wheat.
 - (d) Ceres Wheat compared with Marquis.
4. The D-K. Rapid Moisture Tester.
5. The Improved Carter Simon Rapid Moisture Tester.
6. Removal of Ergot from Rye.
7. An Automatic Proofing Device for Bread Doughs.
8. Special tests for the information of the Chief Inspector.
 - (a) Comparative milling and baking quality of Hard Red and Hard White Kernels, contained in a sample of Marquis Wheat.
 - (b) Milling and baking quality of Montana Red Winter Wheat grown in Manitoba.
 - (c) The effect of different percentages of soft starchy wheat on the baking quality of Hard Red Spring Wheat.
 - (d) Protein content of cargoes of No 4 wheat.
 - (e) Drying of wheat.
 - (f) The oil content of damaged flax.
9. Tests of damaged wheat.
 - (a) Plump grass green kernels in otherwise normal wheat.
 - (b) Bleached wheat.
 - (c) Sprouted wheat.
 - (d) Bran frosted wheat.
 - (e) Heavily frosted wheat.
 - (f) Lower grades containing large percentages of frosted, green and immature kernels.

The supervision of the moisture testing at all inspection offices from the Atlantic to the Pacific has been continued as in the past. By constantly checking the results obtained at the different points with tests made on the same samples in the laboratory, a high degree of uniformity has been obtained at all points.

The laboratory has been pleased to co-operate with the Cereal Department of the Department of Agriculture and to conduct on different occasions a series of protein tests in connection with their plant breeding work on new varieties of wheat.

On numerous occasions throughout the year the laboratory has been of service to farmers, grain and milling organizations both in Canada and abroad by supplying them with information regarding the protein content, milling and baking qualities of different grades, varieties and types of wheat, the deterioration of grain in storage, and other related matters.

I also have the honour to submit separately a detailed report of the work of the laboratory with the recommendation that it may be published separately.

Yours respectfully,

F. J. BIRCHARD,
Chemist in Charge.

APPENDIX 6

REPORT OF SECRETARY

WINNIPEG, January 9, 1931.

The Chairman,
Board of Grain Commissioners,
Winnipeg, Man.

SIR,—I have the honour to submit the following report covering the work of the Executive Offices of the board during the year ended December 31, 1930.

REORGANIZATION

The work of the executive offices was greatly handicapped at the beginning of the year owing to the fact that while the headquarters of the board had been moved from Fort William to Winnipeg it had not been possible to complete the moving of the necessary staff to Winnipeg and a part of the work was carried out from Fort William and the remainder from Winnipeg. The former secretary, Mr. F. J. Rathbone, was appointed Assistant Commissioner at the Head of the Lakes in December, 1929, and did not move to Winnipeg when the board established offices at that point, but he continued until July 10, 1930, to carry out the duties of secretary as far as possible at Fort William in addition to his duties as an assistant commissioner. The secretarial work at Winnipeg was carried out by a skeleton staff under Mr. V. C. LeFeuvre, Principal Clerk.

I took over the duties of secretary to the board on July 11, 1930, and since that date the whole of the secretarial work has been performed from the Winnipeg office.

The Licence and Bonding Branch was moved from Fort William to Winnipeg at the end of July, 1930, but it was decided that the Statistical Branch was to remain in Fort William.

OFFICES

The offices taken over by the board on the third floor in the Grain Exchange Annex when the offices were first established in Winnipeg were found to be unsatisfactory and in October, 1930, other offices were taken over on the second floor in the same building and while these offices are not entirely suitable, the present arrangements appear to be the best that can be made with the space available. The offices of the members of the board, secretary, Board Room, Licence and Bonding Branch, Canadian Government elevators and the Registration Branch are now en bloc, with the offices of the accountant, previously located in the offices of the Inspection Branch, and the office of the assistant commissioner for Manitoba, immediately above.

TRADE AND COMMERCE

OFFICE PROCEDURE AND ROUTINE

Owing to the system used in Fort William not permitting of a cut-off in the files and records at a certain date, it was not possible without undertaking a great deal of work, to move all the more recent files and records from Fort William to Winnipeg.

It was not considered advisable to move all the files and records of the board since its inception in 1912, so only files and records considered to be absolutely essential have been moved to Winnipeg, other files and records being brought up as found necessary.

After considering the special needs of the executive offices of the board and examining different systems, a complete new filing system has now been introduced and this system appears to be working most satisfactorily. The same system has been introduced in the offices of the Statistical Branch and is also being introduced into the offices of the assistant commissioners. There are still one or two points with regard to the system for maintaining records of books, publications and reports which can be improved and consideration is being given to this matter, as also the matter of introducing a complete staff record to be maintained in the secretary's office.

A number of instructions have been issued regarding office procedure, etc., which all tend to greater efficiency in the executive offices of the board.

STAFF

The staff of the secretary's office in addition to the principal clerk and the secretary to executive who were transferred from Fort William has been augmented by the appointment of one stenographer, Grade 2, one clerk, Grade 3, and one clerk, Grade 1. The total number on the staff being the same as were previously on the secretary's staff in Fort William.

MEETINGS OF THE BOARD

Since my appointment as secretary, I have attended all the meetings of the board, except the public tariff sessions held in Vancouver and Toronto on August 20, 1930, and September 3, 1930, respectively, and have recorded the minutes of these meetings and issued to the parties concerned the decisions of the board.

The Canada Grain Act, 1930, which came into operation on September 1, 1930, necessitated the publication by the board of certain regulations, and instructions *re* changes in procedure and the instructions of the board in these matters have been issued to all concerned.

LICENCE AND BONDING BRANCH

This branch with Mr. C. F. Spittle in charge completed its work for the 1929-30 crop year in Fort William, being moved to Winnipeg at the end of July, 1930.

Under the Canada Grain Act, 1930, the definition of certain classes of elevators were changed and this necessitated a number of licencees applying for a different licence to that under which they had operated for the past few years. This involved extra work for the branch, but the work was facilitated to a great extent by the fact that constant reference could be made to the head offices of a large proportion of the elevator companies, since the offices were located in Winnipeg.

Of the staff of six maintained by this branch in Fort William, five members were transferred to Winnipeg, one stenographer who preferred to remain in Fort William being transferred to the office of the Statistical Branch, her position being filled by the Civil Service Commission from the eligible list for stenographers at Winnipeg. One extra clerk, Grade 3, has been added to the staff, making a total staff of seven.

STATISTICAL BRANCH

The work of this branch has been increased considerably since September 1, 1930, owing to the necessity for maintaining the additional records necessary to permit the Board to exercise the closer supervision of grain in terminal elevators pursuant to the provisions of the Canada Grain Act, 1930, and the staff has been increased by the addition of three clerks, Grade 3 and one stenographer, Grade 2, to a total of twenty-six.

In October, 1930, the offices of the branch in the Grain Exchange building, Fort William, were moved to a brighter and more suitable location in the same building.

The following memoranda summarizing different matters handled and statements compiled by the executive offices are attached herewith:—

- (a) Complaints.
- (b) Defaults.
- (c) Cars out of turn.
- (d) Summary of licences issued for the season 1929-30.
- (e) Licences issued during the past nineteen seasons.
- (f) Elevators and storage capacity.
- (g) Comparative summary of elevators for past nineteen years.
- (h) Grain loading platforms.
- (i) Report of statistician.
- (j) Summary of annual weigh-up public terminal elevators, 1930.
- (k) Sessions held by the board.

Your obedient servant,

J. RAYNER,
Secretary.

COMPLAINTS

During the period from September 1, 1929, to December 31, 1930, the board received one hundred and sixty-nine (169) complaints regarding the handling of grain at country elevators, shipments to terminal elevators, the weighing and grading of grain, the operations of licensees and the operations of parties dealing in grain but not licensed under the Canada Grain Act.

Formal investigations were held by the Board or by an Assistant Commissioner into seven (7) of these complaints.

During the same period twenty (20) complaints were made to the Board regarding the weights and quality of export shipments.

SUMMARY OF COMPLAINTS

Alberta	75	
Saskatchewan	80	
Manitoba	14	
Total		169
Export shipments		20

SUMMARY OF DISPOSITION OF COMPLAINTS

No ground for complaint	77	
Settlement effected between parties	62	
Formal investigation held and orders issued by the board....	7	
Not yet disposed of	23	
Total		169

SUMMARY OF DISPOSITION OF COMPLAINTS REGARDING EXPORT SHIPMENTS

Complaints not justified	17	
Allowance made	1	
Not yet disposed of	2	
Total		20

PROSECUTIONS

In two cases of complaint where breaches of the Canada Grain Act were disclosed, action was instituted by the board in the civil courts and convictions secured in both cases.

DEFAULTS

During the period from September 1, 1929, to December 31, 1930, the default of Robert MacInnes and Company, Limited, of Winnipeg, who were licensed by the board as commission merchants, was the only case of default by a licensee in which claims were submitted to the board for settlement from the security, a Bond in the amount of ten thousand dollars (\$10,000) executed by the Canadian Indemnity Company of Winnipeg, furnished to the board when the licence was issued.

Ten claims amounting to seven thousand, four hundred and ninety dollars, fifty-seven cents (\$7,490.57) filed with the board were found to be within the scope of the commission merchants' bond and a cheque for this amount was received from the Canadian Indemnity Company and distributed amongst the claimants in settlement of their claims in full.

CARS OUT OF TURN

During the period from September 1, 1929, to December 31, 1930, the Board found it necessary on only one occasion to order cars out of turn in accordance with section 68 of the Canada Grain Act, 1930, when eight cars were supplied to a country elevator which was in danger of collapse.

SUMMARY OF LICENCES ISSUED FOR THE SEASON 1929-30

During the season, 220 firms and individuals applied for licences as required by the provisions of The Canada Grain Act.

Five thousand seven hundred and sixty-two applications for licences were received. Eleven of the applications were withdrawn and 5,751 licences were issued.

APPLICATIONS RECEIVED AND LICENCES ISSUED

Kind of Licence	Applications		Licences issued
	Received	Withdrawn	
Track buyers.....	66	4	62
Commission merchants.....	71	.....	71
Primary grain dealers.....	5	2	3
Public terminal elevators.....	11	.....	11
Private elevators.....	76	.....	76
Public elevators.....	21	1	20
Manufacturing elevators.....	28	1	27
Elevator space.....	1	.....	1
Country elevators.....	5,085	3	5,082
Private country elevators.....	398	.....	398
	5,762	11	5,751

Private elevator licences issued by the board to the Electric Elevator and Grain Company Limited were cancelled on April 9, 1930.

Licence fees to the amount of \$30,970 were received and remitted direct to the department at Ottawa.

Surety bonds amounting to \$18,665,321 were executed by thirteen of the approved surety companies and were deposited with the board as security covering the operations of the licensees.

STATEMENT SHOWING NUMBER AND KIND OF LICENCES ISSUED DURING THE SEASONS 1911-1912 TO 1929-1930
(Licence year commences 1st of September)

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Kind	1929- 1930	1928- 1929	1927- 1928	1926- 1927	1925- 1926	1924- 1925	1923- 1924	1922- 1923	1921- 1922	1920- 1921	1919- 1920	1918- 1919	1917- 1918	1916- 1917	1915- 1916	1914- 1915	1913- 1914	1912- 1913	1911- 1912
Public country elevators.....	5,082	5,153	4,540	4,314	4,236	4,074	4,054	3,828	3,668	3,704	3,146	3,322	3,577	3,257	3,013	2,636	2,552	2,267	1,972
Private country elevators.....	398	309	156	35															
Public terminal elevators.....	11	10	11	14	21	11	9	12	11	12	17	17	17	15	13	13	14		
Private elevators.....	76	80	80	67	64	63	60	32	29	25	17	18	20	21	19	18	13	23*	34*
Public elevators.....	20	20	18	17	17	11	10	10	13	11	16	16	18	16	18	18	20		
Manufacturing elevators.....	27	18	16	10	10	12	11	9	14					1					
Elevator space.....	1	1	1	3	3	2	2	2											
Track buyers.....	62	82	84	88	95	104	109	113	132	143	131	130	156	211	195	140	3	19	58
Commission merchants.....	71	90	92	95	94	94	102	100	110	117	114	117	126	138	111	92	137	146	123
Primary grain dealers.....	3	2	3	3	3	3	4	6	3	2						91	91	91	84
Total number issued.....	5,751	5,765	5,001	4,646	4,543	4,374	4,361	4,112	3,980	4,014	3,441	3,620	3,921	3,666	3,379	2,924	2,830	2,546	2,271

* Licensed as terminal elevators.

SUMMARY OF ELEVATORS AND STORAGE CAPACITY—BY CLASSES AND PROVINCES—SEASON 1930-31

(As at December 1, 1930)

Kind of elevator and province		Points	Elevators	Capacity bush.
WESTERN DIVISION				
<i>Country—</i>				
Manitoba.....	373	739	23,751,500	
Saskatchewan.....	1,080	3,237	103,855,400	
Alberta.....	580	1,748	65,344,200	
British Columbia.....	4	9	337,000	
Ontario.....	1	1	40,000	
Total.....	2,038	5,734	193,328,100	
<i>Mill—</i>				
Manitoba.....	(2)	4	170,000	
Saskatchewan.....	1+(3)	4	84,000	
Alberta.....	(3)	3	82,000	
British Columbia.....	2	11	826,000	
Ontario.....	1	1	185,000	
Total.....	4+(8)	23	1,347,000	
<i>Public terminal—</i>				
Ontario.....	(2)	2	9,000,000	
Saskatchewan.....	(2)	2	11,000,000	
Alberta.....	(2)	2	5,000,000	
British Columbia.....	(2)	2	2,000,000	
Total.....	(8)	8	27,000,000	
<i>Semi-public terminal—</i>				
Ontario.....	(2)	26	83,657,210	
British Columbia.....	2+(1)	8	17,200,000	
Total.....	2+(3)	34	100,857,210	
<i>Private terminal—</i>				
Manitoba.....	3+(2)	14	5,247,450	
Saskatchewan.....	(3)	6	4,585,500	
Alberta.....	(3)	16	4,118,000	
British Columbia.....	(1)	1	200,000	
Ontario.....	2+(2)	7	1,940,000	
Total.....	5+(10)	44	16,090,950	
Total—Western Division.....	2,049	5,843	338,623,260	
EASTERN DIVISION				
<i>Eastern—</i>				
Ontario.....	11	18	49,850,000	
Quebec.....	3	7	21,787,000	
New Brunswick.....	2	3	2,200,000	
Nova Scotia.....	1	1	2,200,000	
Total.....	17	29	76,037,000	
TOTALS				
Country elevators.....	2,038	5,734	193,328,100	
Mill elevators.....	4+(8)	23	1,347,000	
Public terminal elevators.....	(8)	8	27,000,000	
Semi-public terminal elevators.....	2+(3)	34	100,857,210	
Private terminal elevators.....	5+(11)	44	16,090,950	
Eastern elevators.....	17	29	76,037,000	
Total.....	2,066	5,872	414,660,260	

(—) Bracketed figures refer to points included in the totals under some other class of elevator, therefore are omitted from Grand Total.

NOTE:—The only elevators in the Eastern Division under the jurisdiction of the Board of Grain Commissioners are the 29 "Eastern Elevators".

COMPARATIVE SUMMARY OF ELEVATORS FOR THE PAST NINETEEN YEARS
(As at December 1 each year)

Licence year	Stations	Elevators	Warehouses	Capacity
1911-1912.....	937	2,037	31	108,649,900
1912-1913.....	1,048	2,319	37	127,224,550
1913-1914.....	1,217	2,607	24	154,765,000
1914-1915.....	1,247	2,813	28	168,624,000
1915-1916.....	1,334	3,059	19	180,988,000
1916-1917.....	1,400	3,360	.....	193,844,000
1917-1918.....	1,463	3,694	.....	211,591,800
1918-1919.....	1,484	3,777	.....	221,279,964
1919-1920.....	1,511	3,797	.....	226,256,970
1920-1921.....	1,542	3,855	.....	231,213,620
1921-1922.....	1,559	3,924	.....	231,633,420
1922-1923.....	1,578	4,020	.....	238,107,420
1923-1924.....	1,620	4,169	.....	251,194,620
1924-1925.....	1,704	4,324	.....	269,900,620
1925-1926.....	1,745	4,416	.....	281,746,560
1926-1927.....	1,793	4,558	.....	284,818,200
1927-1928.....	1,852	4,823	.....	310,832,200
1928-1929.....	1,972	5,481	.....	358,254,790
1929-1930.....	2,054	5,787	.....	394,594,210

GRAIN LOADING PLATFORMS

Only three applications for the construction of loading platforms have been received by the Board since September 1, 1929.

At December 31, 1929, there were 2,578 loading platforms in Western Canada at which farmers could load grain, without putting such grain through country elevators, into 6,183 cars simultaneously.

SUMMARIZED STATEMENT OF GRAIN LOADING PLATFORMS IN WESTERN CANADA

Province	Number of platforms	Car capacity
Manitoba.....	643	1,791
Saskatchewan.....	1,224	2,913
Alberta.....	672	1,405
British Columbia.....	31	58
Ontario.....	8	16
	2,578	6,183

REPORT OF STATISTICIAN—CROP YEAR 1929-30

The western Canadian grain crop of 1929 was the smallest for five years, but it followed the largest, by far, that Canada has ever experienced and of which a substantial quantity still remained to be disposed of.

The following figures represent the total carry-over, the crop of the three Prairie Provinces, the total Canadian crop, the quantities handled by different groups of elevators and the amounts exported, of the five principal grains:—

CROP YEAR 1929-30

	Carry-over July 31, 1929	Crop of Prairie Provinces	Crop of all Canada	Carry-over July 31, 1930
	bush.	bush.	bush.	bush.
Wheat.....	104,383,221	281,664,000	304,520,000	111,692,519
Oats.....	45,165,498	141,620,000	282,838,300	21,411,710
Barley.....	11,020,857	79,787,000	102,313,300	22,840,550
Flaxseed.....	561,487	1,970,000	2,060,400	636,658
Rye.....	4,219,756	11,982,000	13,160,500	9,192,059

TRADE AND COMMERCE

PLATFORM LOADINGS AT COUNTRY POINTS

	Wheat	Other grains	Total
	bush.	bush.	bush.
Manitoba.....	3,295,470	2,904,432	6,199,902
Saskatchewan.....	2,346,954	533,346	2,880,300
Alberta.....	1,137,049	434,969	1,572,018
British Columbia.....	5,236	6,033	11,269
Total.....	6,784,709	3,878,780	10,663,489

TOTAL DELIVERIES AT COUNTRY ELEVATORS (UNREVISED)

	Wheat	Oats	Barley	Flaxseed	Rye
	bush.	bush.	bush.	bush.	bush.
Manitoba.....	20,547,249	2,480,461	13,196,234	174,803	729,432
Saskatchewan.....	132,978,152	10,293,349	9,753,975	1,427,174	4,495,850
Alberta.....	76,661,955	9,005,880	2,157,090	73,549	889,507
Total.....	230,187,356	21,779,690	25,107,299	1,675,526	6,114,789

TOTAL INSPECTIONS—BY PROVINCES OF ORIGIN

Manitoba.....	22,325,750	1,463,200	11,687,000	160,100	670,500
Saskatchewan.....	131,002,250	7,236,000	9,684,000	1,332,900	4,156,100
Alberta.....	66,451,000	7,840,400	1,465,000	47,000	549,500
British Columbia.....	221,000	425,400	9,000	.....	3,900
Total.....	220,000,000	16,965,000	22,845,000	1,540,000	5,380,000

TOTAL HANDLINGS AT FORT WILLIAM—PORT ARTHUR

Receipts.....	135,339,685	5,696,829	17,175,866	1,078,204	4,862,785
Shipments.....	146,319,348	12,862,871	7,331,755	1,025,504	1,476,339

TOTAL HANDLINGS AT VANCOUVER—NEW WESTMINSTER, B.C.

Receipts.....	52,953,938	765,095	103,424	2,386	122,585
Shipments.....	49,873,588	114,842	28,801	25	68,672

TOTAL HANDLINGS AT PRINCE RUPERT, B.C.

Receipts.....	1,118,440	395
Shipments.....	272,533

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TOTAL HANDLINGS AT CANADIAN GOVERNMENT INTERIOR TERMINAL ELEVATORS

	Wheat	Oats	Barley	Corn	Rye
	bush.	bush.	bush.	bush.	bush.
<i>Receipts—</i>					
Calgary.....	2,875,510	48,746	127,209		1,417
Edmonton.....	1,987,008	710,285	142,637		1,275
Moose Jaw.....	2,696,410	279,446	47,113	36,655	13,015
Saskatoon.....	2,590,988	82,670	34,534	28,333	12,706
Total.....	10,149,916	1,121,147	351,493	64,988	28,413
<i>Shipments—</i>					
Calgary.....	2,876,412	93,237	125,508		1,417
Edmonton.....	1,928,035	743,003	136,133	150	1,264
Moose Jaw.....	3,612,523	291,238	44,380	35,891	5,429
Saskatoon.....	2,499,806	95,131	32,536	28,020	5,034
Total.....	10,916,776	1,222,709	338,557	64,061	13,144

TOTAL HANDLINGS OF CANADIAN GRAIN AT DULUTH-SUPERIOR

Receipts.....	268,476	703	107,687		1,674
Shipments.....	298,097	12,698	37,786		24,812

TOTAL HANDLINGS OF CANADIAN GRAIN AT EASTERN ELEVATORS

Receipts.....	109,978,595	12,242,788	6,667,507	619,484	2,045,197
Shipments.....	108,925,380	14,205,652	6,724,215	637,108	1,654,241

TOTAL HANDLINGS OF FOREIGN GRAIN AT EASTERN ELEVATORS

Receipts.....	35,830,696	9,631,740	11,457,628	15,630,766	4,769,406
Shipments.....	34,161,584	8,850,474	10,940,129	15,491,049	2,263,027

TOTAL EXPORTS OF CANADIAN GRAIN AND WHEATFLOUR, TWELVE MONTHS ENDED JULY 31, 1930

	Via Atlantic Seaboard and inland ports of exit	Via Pacific Seaboard	Total
Wheat.....	126,620,155 bush.	29,145,951 bush.	155,766,106 bush.
Wheatflour.....	5,506,858 bbls.	1,271,165 bbls.	6,778,023 bbls.
Total—as wheat.....	151,401,016 bush.	34,866,193 bush.	186,267,209 bush.
Oats.....	1,869,539 "	130,742 "	2,000,281 "
Barley.....	2,599,570 "	5,042 "	2,604,612 "
Rye.....	347,789 "		347,789 "
Flaxseed.....	415,099 "		415,099 "
Total.....	156,633,013 bush.	35,001,977 bush.	191,634,990 bush.

During the year a substantial number of names have been added to our mailing lists and whilst every effort is made to anticipate the needs of the trade, public bodies and other interested parties, for statistics concerning the marketing movement and handling of Canada's grain crops, inquiries and requests for special data, etc., continue to increase steadily.

As the result of an ever-increasing demand for details of stocks in store, by grades, at eastern elevators, the publication on Tuesday (or Wednesday) of each week, of these details was commenced. Also, when the possibility of congestion at Canadian lower lake ports during the fall movement of 1929 developed, a new weekly statement was introduced on which were shown the total stocks of all grains in store as compared to the capacity at each port. Both of these statements were continued throughout the year and appear, from expressions of appreciation received, to be of value to exporters and transportation interests particularly.

CHECKING OF INSURANCE

Under the Canada Grain Act, 1925, operators of public terminal and country elevators were required to fully insure, with approved companies, all grain in store in such elevators against loss by fire.

In the case of the public terminal elevators at Fort William-Port Arthur, Vancouver and Victoria, the insurance was effected by means of specific policies usually placed with a number of companies through one agency. The elevator operators arranged with the agencies to furnish weekly advices of the policies in force and amounts of each. The amounts in force were carefully checked against the value of the grain in store, by grades, as worked out in this office, and the names of the insurance companies compared with the official list of companies licensed to transact business in Canada under the Insurance Act. Where amounts in force appeared to be below the value of the grain in store, the elevator concerned was immediately notified and advice of the additional insurance being placed received promptly. Such occurrences are very rare and usually occasioned by wide fluctuations in prices not being provided for immediately. In the past crop year they did not exceed five.

The insurance of grain in store in country elevators is principally effected by means of "open" policies. Copies of these for eighty-two licensees or groups of licensees were received and scrutinized embracing all the principal companies and the three Pool organizations. Forty-four licensees carried specific insurance, advices of which were received and dealt with in precisely the same manner as for public terminals. During the year three cases of insufficient insurance were noticed and increases requested.

CHARTERS

The Inland Water Freight Rates Act, 1923, requires every shipper of grain loaded at Fort William-Port Arthur to file with the board a copy of the charter confirmation issued by the vessel broker covering each cargo or parcel of grain shipped, unless it is milling grain to be milled in Ontario.

From these charter confirmations weighted averages of freight rates charged, month by month, for the carriage of grain in vessels by each route and destination are compiled for the information of the minister, the board, and for publication. In addition, vessel owners or brokers occasionally ask for special data for use as evidence in disputes or lawsuits, and in one case an exact copy, with accompanying sworn attestation, was furnished the shipper for submission as evidence in the courts of the United States.

PRICES OF GRAIN

Periodicals and market price lists are obtained and preserved on file showing the prices of grain at all the principal markets of North America and Great Britain. Averages of the daily quotations are compiled for the principal grades of spot grain and of each kind of grain in the futures market for publication and as more permanent records.

E. A. URSELL,
Statistician.

FORT WILLIAM, ONT.

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SUMMARY OF ANNUAL WEIGH-UP OF GRAIN IN PUBLIC TERMINAL ELEVATORS, 1930

Elevator Operator	Wheat		Oats		Barley		Flaxseed		Rye		Mixed Grain	
	Surplus	Deficit	Surplus	Deficit	Surplus	Deficit	Surplus	Deficit	Surplus	Deficit	Surplus	Deficit
	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	lbs.	lbs.
<i>Fort William-Port Arthur—</i>												
Grand Trunk Pacific Terminal Elevator Co.....		2,004-20		1,417-26		119-38		1,579-27		7,008-36	75,404	
Saskatchewan Pool Terminals, Ltd. No. 4.....		3,260-20	550-10		1,034-41							
Saskatchewan Pool Terminals, Ltd. No. 6.....		17,252-00	1,930-25		1,330-11		2,050-09			9,976-19	96,495	
Saskatchewan Pool Terminals, Ltd. No. 7.....	53,454-00		198-10							4,905-52	215,838	
Canadian Government Elevators		5,952-20	2,605-29		1,915-37			73-05		687-33		58,320
<i>Vancouver—</i>										42-13	277,011	
Pacific Terminal Elevator Co., Ltd.....	6,029-40		279-24		370-00							5,990
<i>Victoria</i>												
Panama Pacific Grain Terminals Ltd.....											Corn	
Totals.....	59,483-40	28,469-00	5,564-30	1,417-26	4,650-41	119-38	2,050-09				45-30 bu.	
Total net... { Surplus or deficit.	31,014-40		4,147-04		4,531-03			4,637-39	22,680-41		664,748	64,310
								2,587-30			Corn 45-30 bu.	
											22,680-41 600,438 lb.	

SESSIONS HELD BY THE BOARD FROM SEPTEMBER 1, 1929, TO DECEMBER 31, 1930

Date	Place	Subject matter
1929		
Sept. 6.....	Vancouver.....	Tariff of charges and rules and regulations governing the operation of public terminal elevators at Vancouver.
Sept. 17.....	Winnipeg.....	Routine matters.
Sept. 24.....	".....	"
Oct. 8.....	".....	Coastal laws on Great Lakes.
Oct. 8.....	Fort William.....	Routine matters and complaints.
Oct. 28.....	Winnipeg.....	Routine matters and complaints.
Nov. 9.....	".....	"
Nov. 18.....	".....	Bonds.
Dec. 4.....	".....	Routine matters.
Dec. 9.....	".....	Tariff of charges Lake and Bay Port elevator.
Dec. 18.....	Toronto.....	
1930		
Jan. 8.....	Winnipeg.....	Complaints.
Mar. 21.....	".....	License—Electric Elevator and Grain Co.
Mar. 31.....	".....	Complaints.
June 24.....	".....	Appointment Inspector in Charge, Fort William.
July 24.....	".....	Routine matters and complaints.
July 29-30....	".....	"
Aug. 5.....	".....	New Canada Grain Act.
Aug. 6.....	".....	Tariff of charges terminal elevators, Calgary and east of Calgary and country elevators.
Aug. 7.....	".....	Routine matters and complaints.
Aug. 12.....	".....	Tariff of charges and rules and regulations for terminal elevators, west of Calgary.
Aug. 20.....	Vancouver.....	Routine matters and complaints.
Aug. 29.....	Winnipeg.....	"
Aug. 30.....	".....	"
Sept. 3.....	Toronto.....	Tariff of charges and rules and regulations for eastern elevators.
Sept. 8.....	Winnipeg.....	Routine matters and complaints.
Sept. 12.....	".....	Regulations, routine matters and complaints.
Sept. 17.....	".....	Complaints and Car Order Book.
Sept. 22.....	".....	Bonds.
Sept. 23-24....	".....	Regulations and routine matters.
Oct. 2.....	".....	Routine matters and complaints.
Oct. 9.....	".....	"
Oct. 16.....	".....	"
Oct. 30.....	".....	Suspension of coastal laws on the Great Lakes.
Nov. 3.....	".....	Routine matters and complaints.
Nov. 11.....	".....	"
Dec. 2.....	".....	"
Dec. 9.....	".....	"
Dec. 16.....	".....	"
Dec. 23.....	".....	"
Dec. 30.....	".....	"

REPORT OF CANADIAN GOVERNMENT ELEVATORS FOR CROP YEAR ENDED JULY 31, 1930

During the year five elevators were operated by the board, viz., Port Arthur, Moose Jaw, Saskatoon, Calgary and Edmonton. The elevators at Prince Rupert and Halifax are still operated by other parties under lease.

The volume of grain handled at each of the five elevators was less than that of the previous year, the total showing a decrease of over four and a half million bushels, made up as follows:—

Elevator	1928-29	1929-30	Decrease
Port Arthur.....	5,009,437	3,233,123	1,776,314
Moose Jaw.....	3,955,107	3,145,507	809,600
Saskatoon.....	3,545,450	2,831,192	714,258
Calgary.....	4,058,724	3,107,347	951,377
Edmonton.....	3,314,012	2,896,801	417,211
	19,882,730	15,213,970	4,668,760

The decreased handling at Moose Jaw and Saskatoon is largely accounted for by the fact that at the commencement of the crop year these elevators were half filled with grain of the previous crop.

Work has been commenced on additional storage capacity of 2,000,000 bushels to each of these elevators, but as this will not be completed until December it is doubtful whether it will be used to any great extent for the 1930 crop. It should however result in considerably increasing the volume to be handled in future years.

During the latter part of the year under review the Moose Jaw and Saskatoon elevators have handled shipments of grain, principally feed oats, for account of the Provincial Government, destined to those parts of the province where light crops have been experienced, and arrangements have now been completed which it is anticipated will enable the elevators to co-operate with the provincial Department of Agriculture in rendering very valuable service in this direction.

Early in the crop year automatic grain samplers were installed on receiving legs at all the elevators, to ensure accurately representative samples being taken from all cars at the time of unloading.

Arrangements are being made for the installation of new up-to-date cleaning machinery, where necessary, to enable the elevators to maintain their position in rendering to their patrons the greatest possible service in handling and treating all classes of grain.

Notwithstanding the decrease in volume handled, the operations for the year show a surplus of revenue over expenditure, after making the usual provision for depreciation of buildings and equipment. This is mainly accounted for by the grain remaining in store for longer periods, resulting in correspondingly greater storage revenue.

Respectfully submitted,

R. HETHERINGTON,
General Manager.

REGULATIONS OF THE BOARD

REGULATION No. 1, 1930

At a regular meeting of the Board of Grain Commissioners for Canada held at Winnipeg on the twelfth day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with section 15 (v), of the Canada Grain Act, 1930.

REGISTRATION AND CANCELLATION OF TERMINAL ELEVATOR
WAREHOUSE RECEIPTS

1. The word "registered" when used in reference to a warehouse receipt shall mean that a distinctive rubber stamp, bearing the date and the word "registered" is superimposed on the warehouse receipt in the space provided, and signed by the registrar, or deputy registrar.

2. Each manager or operator as soon as possible after the 31st of July in each year, unless otherwise determined by the board, shall prepare and deliver to the registrar a statement of all outstanding warehouse receipts at that date. Such statement shall be made by grades, showing the warehouse receipt number and the bushels.

3. Each manager or operator shall present to the registrar for registration warehouse receipts for all grain unloaded in his public or semi-public terminal elevator. Such warehouse receipts shall state the quantity and grade of grain, the date unloaded and the person on whose account the grain has been received. The Registrar shall compare the same with the records of his office and if he shall find that the same is issued for grain actually received in store into the elevator, and if for the correct quantity and grade of grain so received therein as shown by the records in his office, he is directed and authorized to stamp the same with his official stamp as registered, and to make a record thereof in the proper books of his office.

4. When any grain is shipped from any public or semi-public terminal elevator, the manager or operator thereof shall tender to the Registrar for "registration for cancellation" registered warehouse receipts covering the same both as to quantity and grade. All such receipts tendered to the registrar as aforesaid shall be accompanied by a report showing the number of the warehouse receipt; the number of bushels and kind of grain represented by such receipt, and such receipts shall be presented to the Registrar for cancellation as soon as possible after the shipment of the grain, in no case exceeding forty-eight hours after such grain has been shipped from the elevator.

5. Each manager or operator of a semi-public terminal elevator shall furnish the Registrar daily with a correct statement of the amount of each kind and grade of grain received into store in his elevator on the previous day. Also the amount of each kind and grade of grain shipped by each elevator during the previous day and a certified statement showing the balance in store at the close of business each day of each kind and grade of grain.

6. The manager or operator of a public or semi-public terminal elevator may present to the Registrar warehouse receipts to be split into two or more parts. A cancellation report shall be made showing date, number, bushels and grade of warehouse receipts being cancelled, and a registration report showing date, number, bushels and grade of the new warehouse receipts. Such new warehouse receipts shall be registered by the registrar.

7. The manager or operator of a semi-public terminal elevator may present to the Registrar two or more warehouse receipts for consolidation. A cancellation report shall be made up showing date, number of bushels, grade and number of warehouse receipts being cancelled and a registration report

showing date, number of bushels, grade, and number of the new warehouse receipt. Such new warehouse receipt shall be registered by the registrar. Consolidations for grades No. 1 Hard, One Northern, Two Northern and Three Northern must be for the same grade as is shown on the warehouse receipts presented for cancellation, all other consolidations may be registered as to grade for a grade different from that shown on the cancelled warehouse receipts provided that the total outstanding warehouse receipts including the said warehouse receipt for grain of such grade, shall not exceed the total quantity of grain of such grade shown to be in store at that date.

8. All warehouse receipts for grain issued by the manager or operator of any public or semi-public terminal elevator shall be in the form approved by the board and shall for each elevator be numbered consecutively. No two receipts bearing the same number shall be issued from the same elevator during any one year, except in the case of a lost or destroyed receipt, in which case the new receipt shall bear the same date and number as the original and shall be plainly marked on its face "duplicate."

9. The registrar shall furnish each manager or operator with a Signature Card and the manager or operator shall complete such card with a specimen signature of all the officers or employees who are authorized to sign and countersign warehouse receipts in their behalf.

10. Each public or semi-public terminal elevator shall pay to the Board a registration fee of 4 cents per thousand bushels for inward registration, and 4 cents per thousand bushels for registration for cancellation.

11. All warehouse receipts shall be signed and countersigned before being presented for registration.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER,
Secretary.

REGULATION No. 2, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held in Winnipeg on the twelfth day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with section 15 (s) of the Canada Grain Act, 1930.

MAXIMUM SHRINKAGE ALLOWANCES WHICH MAY BE MADE ON THE DELIVERY OF GRAIN TO COUNTRY ELEVATORS

No elevator shall take more than the allowance for shrinkage, waste in handling, storing and transmitting the grain to a terminal than the weight in pounds set forth in this shrinkage table. All shrinkage on tough and damp grain shall not be more than double the allowance as set forth in this schedule. This shrinkage table shall be placed conspicuously in all licensed country elevators for free inspection of the public.

Gross bushels	WHEAT	FLAX AND RYE	Shrinkage allowance
	Gross weight in pounds	Gross weight in pounds	
	lbs.	lbs.	lbs.
Up to and including 25 bush.....	1,500	1,400	5
Over 25 bush.....	1,500	1,400	
to 42 ".....	2,520	2,352	10
Over 42 ".....	2,520	2,352	
to 58 ".....	3,480	3,248	15
Over 58 ".....	3,480	3,248	
to 75 ".....	4,500	4,200	20
Over 75 ".....	4,500	4,200	
to 92 ".....	5,520	5,152	25
Over 92 ".....	5,520	5,152	
to 108 ".....	6,480	6,048	30
Over 108 ".....	6,480	6,048	
to 125 ".....	7,500	7,000	35
Over 125 ".....	7,500	7,000	
to 142 ".....	8,520	7,952	40
Over 142 ".....	8,520	7,952	
to 158 ".....	9,480	8,848	45

OATS

Gross bushels	Gross weight in pounds	Shrinkage allowance
	lbs.	lbs.
Up to and including 25 bush.....	850	5
Over 25 bush.....	850	
to 42 ".....	1,428	6
Over 42 ".....	1,428	
to 58 ".....	1,972	8
Over 58 ".....	1,972	
to 75 ".....	2,550	11
Over 75 ".....	2,550	
to 92 ".....	3,128	14
Over 92 ".....	3,128	
to 108 ".....	3,672	17
Over 108 ".....	3,672	
to 125 ".....	4,250	20
Over 125 ".....	4,250	
to 142 ".....	4,828	23
Over 142 ".....	4,828	
to 158 ".....	5,372	26

BARLEY

Gross bushels	Gross weight in pounds	Shrinkage allowance
	lbs.	lbs.
Up to and including 25 bush.....		
Over 25 bush.....	1,200	5
to 42 ".....	1,200	
Over 42 ".....	2,016	8
to 58 ".....	2,016	
Over 58 ".....	2,784	12
to 75 ".....	2,784	
Over 75 ".....	3,600	16
to 92 ".....	3,600	
Over 92 ".....	4,416	20
to 108 ".....	4,416	
Over 108 ".....	5,184	24
to 125 ".....	5,184	
Over 125 ".....	6,000	28
to 142 ".....	6,000	
Over 142 ".....	6,816	32
to 158 ".....	6,816	
	7,584	36

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER,
Secretary.

REGULATION No. 3, 1930

At a regular meeting of the Board of Grain Commissioners for Canada held at Winnipeg on twelfth day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with sections 15 (R), (T) 110, (2); and 112; of the Canada Grain Act, 1930.

MAXIMUM TARIFF OF CHARGES AND RULES AND REGULATIONS FOR LICENSED COUNTRY ELEVATORS, FOR THE CROP YEAR ENDING AUGUST 31, 1931

MAXIMUM TARIFF OF CHARGES

Subject to the capacity of the elevator and the nature of the construction, all grain tendered must be taken into store upon following terms and conditions, and under the provisions of the Canada Grain Act, 1930:—

Maximum Rates—Special Bin Grains:

Receiving, elevating, spouting, insurance against fire, storing for the first fifteen (15) days and putting into cars on track; no elevator shall charge more than three cents (3 cents) per bushel for Flax, two and one-half cents (2½ cents) per bushel for Wheat, Barley and Rye, and one and three-quarter cents (1¾ cents) per bushel for Oats.

Graded Storage and Subject to Grade and Dockage Grain:

Receiving, elevating, spouting, insurance against fire, storing for the first fifteen days and putting into cars on track no elevator shall charge more than three cents (3 cents) per bushel for Flax, two cents (2 cents) per bushel for Wheat, Barley and Rye and one and three-quarters cents ($1\frac{3}{4}$ cents) per bushel for Oats. Storage not otherwise provided, including insurance against fire, for each succeeding day after the first fifteen (15) days shall not exceed one-thirtieth of one cent ($1/30$ cent) per bushel.

Cleaning:

The rate for cleaning grain shall be mutually agreed upon by the elevator operator and the owner of the grain according to the nature of its dockage, but in no case shall the rate exceed a maximum of two cents (2 cents) per bushel.

Shrinkage:

No elevator shall take more than the allowance for shrinkage, waste in handling, storing and transmitting the grain to a terminal than the weight in pounds set forth in the shrinkage table as authorized and declared to form part of the tariff and Rules and Regulations for Country Elevators.

All shrinkage on tough and damp grain shall not be more than double the allowance as set forth in the aforesaid schedule.

Such shrinkage table shall be placed conspicuously in all licensed Country Elevators for free inspection of the public.

Dockage on Cash or Stored Grain:

No elevator shall take a greater dockage than that shown by a proper test over a number ten sieve, except where the grains contain foreign grain or seeds which cannot be taken out by a number ten sieve.

Every elevator must be equipped with the necessary sieves and scales for making proper tests, and the elevator operator must make the test in the presence of the owner of the grain when requested.

General:

When tough, damp or wet grain is taken into store it shall be at the owner's risk, and the elevator operator shall have the right to ship it immediately to a terminal elevator for treatment.

All tough, damp or wet grain, containing an excessive amount of snow, and ice, may be handled subject to agreement between the owner of the grain and the operator.

RULES AND REGULATIONS:

1. The owner or operator of a country elevator shall post in the elevator in a conspicuous place, a diagram to a scale of not less than one-half inch to one foot, showing the location and numbers of the several bins in such elevator.

2. In shipping or delivering any grain stored in a country elevator, the net weight on the ticket or tickets shall be final, unless an investigation by the Board of Grain Commissioners shows reason for the contrary. The shipper to be paid in case of short shipment up to the amount of his or her ticket or tickets for the full billing capacity of the car, at the same price as the car was disposed of.

3. All shipping bills for grain shipped through an elevator shall be made out by the elevator agent, and he shall advise such parties as the owner may instruct.

4. The owner of grain in an elevator wishing such grain shipped to any point other than a terminal point, or where Government weights cannot be obtained, the owner of the grain must then accept the elevator weights at the shipping point as final unless it is proved that the shipping weights are not correct. Provided, moreover, the owner of the grain can always demand an affidavit as to the actual grain shipped and delivered from the elevator operator and receiver of said grain respectively.
5. No owner or operator of a country elevator or warehouse shall sell, assign, mortgage, pledge, or hypothecate any grain stored in such elevator or warehouse, for which storage tickets have been issued, and the owner or operator may be required by the Board to produce at any time proper registered warehouse receipts or bills of lading for such grain as has been shipped from the country elevator or warehouse, and for which there is still outstanding storage tickets.
6. No license will be granted for the operation of any country elevator the agent or buyer of which is subject to a shortage bond, and in the event of a shortage bond being entered into after license has been granted such license will be subject to immediate cancellation.
7. The ticket or tickets issued where there is a disagreement as to grade and dockage or where grain has been received subject to inspector's grade and dockage must have incorporated thereon at the time of issue the grade offered by the elevator owner or operator to the owner of the grain.
8. The owner of the grain can only demand the quantity that the storage ticket or tickets call for.
9. In case there is a dispute as to the weighing accuracy of the receiving scales, it shall be incumbent upon the owner of the elevator to prove that the scales are weighing accurately.
10. In the case of special bin or subject to grade and dockage grain a proper sample must be drawn from each load by the elevator operator at the time of delivery, in the presence of the party delivering same, and such sample must be drawn satisfactorily to both the deliverer and the operator, and all such samples must be placed in a suitable receptacle satisfactory to the Board of Grain Commissioners and must be properly mixed in such receptacle. The receptacle shall be provided by the warehouseman and the sample shall be placed therein in the presence of the owner. The receptacle shall be secured by padlock which the owner of the grain shall provide, and the key of which he shall retain. The warehouseman shall be the custodian of the receptacle and of the sample.
11. In the case of subject to grade and dockage grain, a fair and proper sample of at least 2 quarts shall then be drawn in the presence of the owner of the grain from such receptacle and forwarded in a suitable receptacle properly tied and sealed, and marked "Subject to Inspector's Grade and Dockage" to the Chief Inspector of Grain, and shall be accompanied by a request in writing of either or both parties aforesaid that the Chief Inspector will examine the sample and report on the grade and dockage the grain is in his opinion entitled to, and would receive if shipped to a terminal point and subjected to an official inspection.
12. After receiving the inspector's judgment, showing the grade and dockage the elevator operator shall in the case of cash tickets make settlement on the basis of the grade and dockage given by the Chief Inspector, and shall, in the case of subject to grade and dockage tickets, issue graded storage tickets showing the grade and dockage as given by the Chief Inspector for the full amount of grain so taken into store, such graded storage tickets to bear the same date as the original subject to grade and dockage tickets, after which the grain shall be subject to the rules and regulations covering graded stored grain.

13. Notwithstanding any regulation provided in paragraphs five and six of these regulations, if the identity of the grain has been preserved even though Subject to Grade and Dockage tickets may have been issued therefor, if agreeable to the owner, the grain then may be handled in accordance with the provisions of the Canada Grain Act and Rules and Regulations relating to the special binning of grain in country elevators.

14. At the time of delivery of any grain where a ticket of this kind is being used, and it is agreed upon by the owner of the grain and the elevator operator that the grain is tough, damp, or wet, and the elevator operator marks such ticket or tickets; "Out of condition, tough, damp or wet," then whatever grade such sample may receive from the Chief Inspector, it will still grade "tough, damp, or wet."

15. If the elevator operator fails at any time to draw and preserve such sample in the manner stated herein, the owner or operator must account to the owner of the grain for the grade designated by the said owner.

16. When submitting samples of grain to the Chief Inspector, elevator operators must have such samples properly marked either "Special Bin" or "Subject to Inspector's Grade and Dockage" as the case may be.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER, *Secretary.*

REGULATION No. 4, 1930

At a regular meeting of the Board of Grain Commissioners for Canada held at Winnipeg, on the twelfth day of September, 1930, the said board did make a regulation as set out hereunder, in accordance with section 15 (f) of the Canada Grain Act, 1930.

INSPECTION OF SAMPLES TAKEN OTHER THAN AT AN INSPECTION POINT

1. Any producer, holder of, or person, or persons interested in any grain may submit to the Chief Inspector, or to the inspector in charge at any inspection point of the Board of Grain Commissioners at any time, a sample of such grain which has been taken otherwise than at an inspection point, provided always that such sample is forwarded in accordance with these regulations.

2. The sample must consist of two pounds of the grain which the sample represents and the sample shall be taken in such a manner as to ensure that an average and representative sample of the whole is secured.

3. Samples must be forwarded in cotton bags or tin containers with shipping tag attached and plainly addressed to the Chief Inspector or Grain Inspector in charge at any inspection office maintained by the Board of Grain Commissioners, with carrying charges fully prepaid.

4. Not more than one sample may be enclosed in one container.

5. All samples must bear on the shipping tag attached to the container or in an accompanying letter, the name and post office address of the party or parties to whom advice as to the grade of the sample is to be forwarded, and each sample must bear on the shipping tag a distinguishing number or other mark of identification. The same mark of identification must not be used by a shipper on more than one sample during the season.

6. When it is the wish of the shipper that the Inspection Department shall make a test as to condition of any sample, the sample or a portion of the sample, not less than eight ounces in weight, must be forwarded in a metal air-tight container. This sample should be placed in the air-tight container immediately the sample is taken from the bulk of the grain which the sample represents.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER, *Secretary.*

REGULATION No. 5, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held at Winnipeg on the twelfth day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with section 15 (r) and 134, of the Canada Grain Act, 1930.

MAXIMUM TARIFF OF TERMINAL ELEVATOR CHARGES AT FORT WILLIAM AND PORT ARTHUR TERMINALS FOR THE CROP YEAR ENDING AUGUST 31, 1931

Subject to the capacity of the elevator and the nature of its equipment, shipments must be received upon the following terms and conditions, and under the provisions of the Canada Grain Act, 1930:—

ELEVATION CHARGES

On straight grade, tough, damp or wet grain receiving, elevating, shipping, storing and insurance against fire for the first fifteen days:—

Flax..	2 cents per bushel
Rye..	1½ cents per bushel
Wheat, oats and barley..	1¼ cents per bushel

All tough, damp, wet, condemned, heating, heated or fireburnt grain may always be refused. If received and stored it will only be at the owner's risk of deterioration. All damp grain and tough and damp flax will be dried without notice as soon after unloading as facilities will permit.

On mixed grain handled as mixtures, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, two cents (2 cents) per hundred pounds.

On screenings, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, three cents (3 cents) per hundred pounds.

STORAGE CHARGES

On straight grade and tough grain, not otherwise specified, including insurance against fire for each succeeding day or part thereof after the first fifteen days, one-thirtieth of one cent ($\frac{1}{30}$ cent) per bushel.

On mixed grain handled as mixtures, storage, including insurance against fire for each succeeding day or part thereof after the first fifteen days, two-thirtieths of one cent ($\frac{2}{30}$ cent) per hundred pounds.

On screenings, storage including insurance against fire for each succeeding day or part thereof after the first fifteen days, one-tenth of one cent ($\frac{1}{10}$ cent) per hundred pounds.

SCREENINGS

On wheat carrying a dockage of three per cent (3%) or more, after deducting one-half of one per cent ($\frac{1}{2}\%$) of the gross weight of the car for waste, a return will be made for the balance of screenings.

On wheat carrying a dockage containing three and one-half per cent ($3\frac{1}{2}\%$) wild oats a separate return will be made for the wild oats, after deducting therefrom one-half of one per cent ($\frac{1}{2}\%$) on the gross weight of the car for waste.

On oats and barley, carrying a dockage of over five per cent (5%) after deducting one-half of one per cent ($\frac{1}{2}\%$) of the gross weight of the car for waste, a return will be made for the balance of the screenings.

On rye and flax carrying a dockage of over five per cent (5%) after deducting one per cent (1%) of the gross weight of the car to cover outward dockage and waste in cleaning, a return will be made for the balance of the screenings.

If disposition of screenings covered by outstanding returns is not received within thirty (30) days from the date of unloading, they may be disposed of for account of whom it may concern.

The holder of warehouse receipts or shut-outs covering dockage shall be entitled to receive such average quality of screenings as shall be determined by the Inspection Department in accordance with sample tests which shall be made in such manner and when deemed necessary by said department.

CLEANING CHARGES

On wheat, for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

Dockage under 3 per cent—No charge.

Dockage 3 per cent to 5 per cent inclusive—One-half cent ($\frac{1}{2}$ c.) per bushel.

Dockage $5\frac{1}{2}$ per cent to 10 per cent—One cent (1c.) per bushel.

Dockage over 10 per cent—One and one-half cents ($1\frac{1}{2}$ c.) per bushel.

On wheat carrying a return of wild oats computed on the gross weight of the car, an additional separating charge of one-half cent ($\frac{1}{2}$ c.) per bushel.

On oats, barley and rye, for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

On all cars carrying a dockage of:—

Up to and including 5 per cent—no charge.

Over 5 per cent and up to 10 per cent, oats and barley—one cent (1c.) per bushel.

Over 5 per cent and up to 10 per cent, rye—one and one-half cent ($1\frac{1}{2}$ c.) per bushel.

Over 10 per cent, oats and barley—one and one-half cent ($1\frac{1}{2}$ c.) per bushel.

Over 10 per cent, rye—two cents (2c.) per bushel.

On all grain carrying a return of other domestic grain (C.C. cars) computed on the gross weight of the car additional separating charges as follows:—

Dockage up to 10 per cent (Domestic grain)—Three cents (3c.) per 100 pounds.

Dockage over 10 per cent and up to 15 per cent—Four cents (4c.) per 100 pounds.

Dockage over 15 per cent—Five cents (5c.) per 100 pounds.

Flax cleaned from any other grain containing broken particles that cannot be separated, shall be classified as "Flax and Broken Wheat."

On flax for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

On flax carrying a dockage of:—

Up to and including 5 per cent—no charge.

Over 5 per cent and up to 10 per cent—one and one-half cents (1½c.) per bushel.

Over 10 per cent rye—two cents (2c.) per bushel.

SPECIAL SEPARATIONS

Separations of mixed grains, or straight grade grains to improve grade, computed on gross weight of car, five cents (5c.) per one hundred pounds.

On all such separations a deduction of one per cent (1%) of the gross weight will be made to cover invisible loss in separation.

DRYING CHARGES

On damp or wet grain—five cents (5c.) per bushel.

On tough grain—three cents (3c.) per bushel.

Allowance for Invisible Loss and Shrinkage on All Cars

Wheat	30 pounds per car
Oats	50 pounds per car
Barley	50 pounds per car
Mixed grain	50 pounds per car
Rye	56 pounds per car
Flax	56 pounds per car

ALL CHARGES

All charges for cleaning, drying or other treatment will be computed on gross weight of car, for elevation and storage on net weights. All charges accruing after issue of initial completed outturn and expense bill will follow the grain. All charges whatsoever must be paid before shipment.

BULKHEADS

On bulkheads for their removal and other additional expenses in handling and unloading car—five dollars (\$5) per bulkhead.

UNLOADING SACKED GRAIN

A charge of five cents (5c.) per sack will be made for unloading all sacked grain.

PREPARING CARS FOR LOADING

When paper is used in preparing cars, there will be a charge of four dollars (\$4) for each car.

UNSPECIFIED GRAIN

Unspecified grain will only be received, stored and treated subject to special charges to be agreed upon at the time, subject to the approval of the Board of Grain Commissioners.

Upon the application to the board of any terminal elevator, the above tariff may be reduced in so far as that elevator is concerned, but such reduced charges must apply to all grain received at such elevator during the crop year 1930-31.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. McGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER, Secretary.

REGULATION No. 6, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held at Winnipeg on the twelfth day of September, 1930, the said board did make the Regulations as set out hereunder, in accordance with section 15 (r) and 134, of the Canada Grain Act, 1930.

MAXIMUM TARIFF OF CHARGES GOVERNMENT INTERIOR TERMINAL ELEVATORS AT SASKATOON, MOOSE JAW, CALGARY AND EDMONTON FOR THE CROP YEAR ENDING AUGUST 31, 1931

Subject to the capacity of the elevator and the nature of its equipment, shipments will be received upon the following terms and conditions, and under the provisions of the Canada Grain Act, 1930:—

ELEVATION CHARGES

On straight grade, tough, damp or wet grain, not otherwise specified, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, one cent (1c.) per bushel.

All tough, damp, wet, condemned, heating, heated or fireburnt grain may always be refused. If received and stored, it will be only at the owner's risk of deterioration and under special contract, except that from November 1 to April 1 tough grain will be received and stored under the terms and conditions applying to straight grade grain.

On mixed grains handled as mixture, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, one and one-half cents (1½c.) per hundred pounds.

On screenings, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, three cents (3c.) per hundred pounds.

On grain unloaded from wagons, or teams, receiving, elevating, cleaning, shipping, insurance against fire, storage for the first fifteen days, one and one-half cents (1½c.) per bushel.

STORAGE CHARGES

On straight grade and tough grain, not otherwise specified, including insurance against fire for each succeeding day or part thereof after the first fifteen days, one-sixtieth of one cent (1/60c.) per bushel.

On mixed grain handled as mixtures, storage, including insurance against fire for each succeeding day or part thereof, after the first fifteen days, one-thirtieth of one cent ($1/30c.$) per hundred pounds.

On screenings, storage, including insurance against fire for each succeeding day or part thereof, after the first fifteen days, one-tenth of one cent ($1/10c.$) per hundred pounds.

SCREENINGS

On wheat carrying a dockage of three per cent (3%) or more, after deducting one-half of one per cent ($\frac{1}{2}\%$) of the gross weight of the car for waste, a return will be made for the balance of the screenings.

On wheat carrying a dockage containing three and one-half per cent ($3\frac{1}{2}\%$) wild oats, a separate return will be made for the wild oats, after deducting therefrom one-half of one per cent ($\frac{1}{2}\%$) of the gross weight of the car for waste.

On oats and barley carrying a dockage of over five per cent (5%) after deducting one-half of one per cent ($\frac{1}{2}\%$) of the gross weight of the car for waste, a return will be made for the balance of the screenings.

On rye and flax carrying a dockage of over five per cent (5%) after deducting one per cent (1%) of the gross weight of the car to cover outward dockage and waste in cleaning, a return will be made for the balance of the screenings.

If disposition of screenings covered by outstanding returns is not received within thirty (30) days from the date of unloading, they may be disposed of for account of whom it may concern.

The holder of warehouse receipts or shut-outs covering dockage shall be entitled to receive such average quality of screenings as shall be determined by the Inspection Department in accordance with sample tests which shall be made in such manner and when deemed necessary by said department.

CLEANING CHARGES

On wheat, for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

Dockage under 3%—no charge.

Dockage 3% to 5% inclusive—one-half cent ($\frac{1}{2}c.$) per bushel.

Dockage $5\frac{1}{2}\%$ to 10%—one cent (1c.) per bushel.

Dockage over 10%—one and one-half cents ($1\frac{1}{2}c.$) per bushel.

On wheat carrying a return of wild oats computed on the gross weight of the car, an additional separating charge of one-half cent ($\frac{1}{2}c.$) per bushel.

On oats, barley and rye, for removal of dockage other than domestic grain, there will be cleaning charges as follows:—

On all cars carrying a dockage of:—

Up to and including 5 per cent—no charge.

Over 5 per cent and up to 10 per cent, oats and barley,—one cent (1c.) per bushel.

Over 5 per cent and up to 10 per cent rye—one and one-half cents ($1\frac{1}{2}c.$) per bushel.

Over 10 per cent, oats and barley—one and one-half cents ($1\frac{1}{2}c.$) per bushel.

Over 10 per cent rye—two cents (2c.) per bushel.

On all grain carrying a return of other domestic grain (C.C. Cars) computed on the gross weight of the car additional separating charges as follows:—

Dockage up to 10% (Domestic Grain)—three cents (3c.) per 100 pounds.

Dockage over 10% and up to 15%—four cents (4c.) per 100 pounds.

Dockage over 15%—five cents (5c.) per 100 pounds.

Flax cleaned from any other grain containing broken particles that cannot be separated, shall be classified as "Flax and Broken Wheat."

On Flax for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

On flax carrying a dockage of:—

Up to and including 5 per cent—no charge.

Over 5 per cent and up to 10 per cent—one and half cents (1½c.) per bushel.

Over 10 per cent (2c.) two cents per bushel.

SPECIAL SEPARATIONS

Separations of mixed grains, or straight grade grains to improve grade, computed on gross weight of car, Five cents (5c.) per one hundred pounds.

On all such separations a deduction of one per cent (1%) of the gross weight will be made to cover invisible loss in separation.

DRYING CHARGES

On tough grain—three cents (3c.) per bushel.

On damp or wet grain—five cents (5c.) per bushel.

Allowance for Invisible Loss and Shrinkage on All Cars

On all grain received, deductions from the gross weight of each car to cover invisible loss and shrinkage in handling will be made as follows:—

Wheat	30 pounds per car
Oats	50 pounds per car
Barley	50 pounds per car
Mixed grain	50 pounds per car
Rye	56 pounds per car
Flax	56 pounds per car

ALL CHARGES

All charges for cleaning, drying or other treatment will be computed on gross weight of car, for elevation and storage on net weights. All charges accruing after issue of initial completed outturn and expense bill will follow the grain. All charges whatsoever must be paid before shipment.

BULKHEADS

On bulkheads for their removal and other additional expense in handling and unloading car, five dollars (\$5) per bulkhead.

UNLOADING SACKED GRAIN

A charge of five cents (5c.) per sack will be made for unloading all sacked grain.

SACKING GRAIN

Sacking grain and loading to cars or other vehicles will be subject to rate agreed upon.

PREPARING CARS FOR LOADING

When paper is used in preparing cars, there will be a charge of four dollars (\$4) for each car.

UNSPECIFIED GRAIN

Unspecified grain will be only received, stored and treated subject to special charges to be agreed upon at the time, subject to the approval of the Board of Grain Commissioners.

Upon the application to the board of any terminal elevator, the above tariff may be reduced in so far as that elevator is concerned, but such reduced charges must apply to all grain received at such elevator during the crop year 1930-31.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MCGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER, Secretary.

REGULATION No. 7, 1930

At a regular meeting of the Board of Grain Commissioners for Canada held at Winnipeg on the twelfth day of September, 1930, the said board did make the Regulation as set out hereunder, in accordance with section 15 (r) and 134 of the Canada Grain Act, 1930.

MAXIMUM TARIFF OF CHARGES TERMINAL ELEVATORS WEST
OF CALGARY, ALTA., FOR THE CROP YEAR ENDING
AUGUST 31, 1931

Subject to the capacity of the elevator and the nature of its equipment shipments will be received upon the following terms and conditions and under the provisions of the Canada Grain Act, 1930.

ELEVATION CHARGES

On straight grade, tough, damp or wet grain, not otherwise specified, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days:—

Flax—two cents (2c.) per bushel.

Rye—one and one-half cents ($1\frac{1}{2}$ c.) per bushel.

Wheat, oats and barley—one and one-quarter cents ($1\frac{1}{4}$ c.) per bushel.

All tough, damp, wet, condemned, heating, heated or fireburnt grain may always be refused, if received and stored it will only be at the owners risk of deterioration and under special contract except that tough grain will be received and stored under the terms and conditions applied to straight grade grain as provided in the Canada Grain Act.

On mixed grains, handled as mixtures, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, two cents (2c.) per hundred pounds.

On screenings, receiving, elevating, shipping, storing and insurance against fire for the first fifteen days, three cents (3c.) per hundred pounds.

STORAGE CHARGES

On straight grade and tough grain, not otherwise specified, including insurance against fire, for each succeeding day or part thereof after the first fifteen days, one-thirtieth of one cent ($1/30$ c.) per bushel.

On mixed grain handled as mixtures, storage, including insurance against fire, for each succeeding day or part thereof, after the first fifteen days, two-thirtieths of one cent ($2/30$ c.) per hundred pounds.

On screenings, storage, including insurance against fire, for each succeeding day or part thereof, after the first fifteen days, one-tenth of one cent ($1/10$ c.) per hundred pounds.

SCREENINGS

On wheat carrying a dockage of three per cent (3%) or more, after deducting one-half of one per cent ($\frac{1}{2}$ %) of the gross weight of the car for waste, a return will be made for the balance of the screenings.

On wheat carrying a dockage containing three and one-half per cent ($3\frac{1}{2}$ %) wild oats a separate return will be made for the wild oats, after deducting therefrom one-half of one per cent ($\frac{1}{2}$ %) on the gross weight of the car for waste.

On oats and barley, carrying a dockage of over five per cent (5%) after deducting one-half of one per cent ($\frac{1}{2}$ %) of the gross weight of the car for waste, a return will be made for the balance of the screenings.

On rye and flax carrying a dockage of over five per cent (5%) after deducting one per cent (1%) of the gross weight of the car to cover outward dockage and waste in cleaning, a return will be made for the balance of the screenings.

If disposition of screenings covered by outstanding returns is not received within thirty (30) days from the date of unloading, they may be disposed of for account of whom it may concern.

The holder of warehouse receipts of shut-outs covering dockage shall be entitled to receive such average quality of screenings as shall be determined by the Inspection Department in accordance with sample tests which shall be made in such manner and when deemed necessary by said Department.

CLEANING CHARGES

On wheat, for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

Dockage under 3%—no charge.

Dockage 3% to 5% inclusive—one-half cent ($\frac{1}{2}$ c.) per bushel.

Dockage 5½% to 10%—one cent (1c.) per bushel.

Dockage over 10%—one and one-half cents ($1\frac{1}{2}$ c.) per bushel.

On wheat carrying a return of wild oats computed on the gross weight of the car, an additional separating charge of one-half of one cent ($\frac{1}{2}$ c.) per bushel.

On oats, barley and rye, for removal of dockage, other than domestic grain, there will be cleaning charges as follows:—

On all cars carrying a dockage of:—

Up to and including 5 per cent—no charge.

Over 5 per cent and up to 10 per cent, oats and barley—one cent (1c.) per bushel.

Over 5 per cent and up to 10 per cent rye—one and one-half cents ($1\frac{1}{2}$ c.) per bushel.

Over 10 per cent, oats and barley—one and one-half cents ($1\frac{1}{2}$ c.) per bushel.

Rye—two cents (2c.) per bushel.

On all grain carrying a return of other domestic grain (C.C. Cars) computed on the gross weight of the car additional separating charges as follows:—

Dockage up to 10% (Domestic Grain)—three cents (3c.) per 100 pounds.

Dockage over 10% and up to 15%—four cents (4c.) per 100 pounds.

Dockage over 15%—five cents (5c.) per 100 pounds.

Flax cleaned from any other grain containing broken particles that cannot be separated, shall be classified as "Flax and Broken Wheat."

On flax for removal of dockage, other than domestic grain there will be cleaning charges as follows:—

On flax carrying a dockage of:—

Up to and including 5 per cent—no charge.

Over 5 per cent and up to 10 per cent—one and one-half cents ($1\frac{1}{2}$ c.) per bushel.

Over 10 per cent—two cents (2c.) per bushel.

SPECIAL SEPARATIONS

Separations of mixed grains, or straight grade grains to improve grade, computed on gross weight of car, five cents (5c.) per one hundred pounds.

On all such separations a deduction of one per cent (1%) of the gross weight will be made to cover invisible loss in separation.

DRYING CHARGES

On tough grain—three cents (3c.) per bushel.

On damp or wet grain—five cents (5c.) per bushel.

Allowance for Invisible Loss and Shrinkage on All Cars

Wheat	30 pounds per car
Oats	50 pounds per car
Barley	50 pounds per car
Mixed grain	50 pounds per car
Rye	56 pounds per car
Flax	56 pounds per car

ALL CHARGES

All charges for cleaning, drying or other treatment will be computed on gross weight of car, for elevation and storage, on net weights.

All charges accruing after issue of initial completed outturn and expense bill will follow the grain. All charges whatsoever, must be paid before shipment.

BULKHEADS

On bulkheads for their removal and other additional expense in handling and unloading cars, \$5 for each bulkhead.

UNLOADING SACKED GRAIN

A charge of five cents (5c.) per sack will be made for unloading all sacked grain.

SACKING GRAIN

For sacking grain the following charges will be made:—

1½c. per bushel on sacks not exceeding 125 pounds.

2c. per bushel on sacks not exceeding 160 pounds.

2½c. per bushel on sacks not exceeding 220 pounds.

For double sacking one cent (1c.) per sack in addition to above.

For sacking screenings a charge of ten cents (10c.) a sack for sacking will be made.

Sacking of screenings will be done only when conditions warrant it, and the Superintendents of such terminal elevators will be the sole judge of this.

Sacks and twine to be furnished by the shipper or supplied at his expense. In case of machine sewing, one-half of one cent (½c.) per sack will be charged for twine.

STENCILLING

For sacking grain the following charges will be made for stencilling.

One-half cent (½c.) per sack.

PREPARING CARS FOR LOADING

When paper is used in preparing cars, there will be a charge of four dollars (\$4) for each car.

UNSPECIFIED GRAIN

Unspecified grain will only be received, stored and treated subject to special charges to be agreed upon at the time, subject to the approval of the Board of Grain Commissioners.

Upon the application to the board of any public or semi-public terminal elevator, the above tariff may be reduced in so far as that elevator is concerned but such reduced charges must apply to all grain received at such elevator during the crop year 1930-31.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER, *Secretary.*

TRADE AND COMMERCE

REGULATION No. 8, 1930

At a regular meeting of the Board of Grain Commissioners for Canada held at Winnipeg on the twelfth day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with section 15 (t) and section 138 (6) of the Canada Grain Act, 1930:

INSPECTION AND GRADING OF GRAIN AFTER TREATMENT

When grain which has been inspected into a public, or semi-public elevator with a grade other than 1 Hard, 1, 2 or 3 Northern by reason of its condition or otherwise has been treated, the Chief Inspector may, upon the request of the operator or manager, inspect such grain in such a manner as he may determine and he may issue therefor an inspection certificate for the grade to which such grain shall then belong by reason of its treatment, which grain shall then be binned according to its grade.

The Chief Inspector shall also, in conjunction with this inspection, issue a transfer certificate for a similar quantity and grade of grain, a copy of which certificate shall be sent to the registrar and to the statistician, who will record the transaction in their books.

Upon the completion of this transaction, the operator or manager of the elevator may issue warehouse receipts for such quantity and grade on his cancelling a like quantity of the grades which have been treated.

Signed this twelfth day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER,
Secretary.

REGULATION No. 9, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held at Winnipeg on Tuesday, the twenty-third day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with section 110 (2) and (3) of the Canada Grain Act, 1930.

STORING OF AND SUBMISSION FOR EXAMINATION OF COUNTRY
ELEVATOR SAMPLES OF SPECIAL BIN GRAIN

1. The receptacle or receptacles containing samples of Special Bin or subject to Grade and Dockage Grain, drawn in accordance with the Regulations of the board, shall, after being locked by the owner of the grain, be kept by the Warehouseman in a locked cabinet or storeroom, the key of which shall be kept by the Warehouseman.

2. On the request made to the manager of a country elevator, within fifteen (15) days after the receipt of the Inspection Certificate covering a shipment from a country elevator of Special Bin Grain, by the owner of the grain or his

agent who considers that the grade placed on his grain is not satisfactory, or who considers that the identity of his grain has not been preserved, both parties thereupon shall forward, charges prepaid and properly sealed, to the Chief Grain Inspector, the receptacle containing the sample taken at the time of the receipt of the grain in the country elevator. The owner of the grain shall forward, under separate cover, to the Chief Inspector, the key of the lock placed on the receptacle. The manager of the elevator shall inform the Chief Inspector by letter that the sample is being forwarded and shall request him to compare the sample forwarded with the sample taken by the Inspection Department from the car at the time of inspection and to state whether, in his opinion, the identity of the grain has been preserved.

3. The Chief Inspector shall compare the two samples of grain and advise the Manager of the elevator and the owner of the grain of his opinion as to whether or not the identity of the grain has been preserved. In cases where the Chief Inspector is of the opinion that the identity has not been preserved, he shall inform the parties concerned of the grade of the sample forwarded from the elevator.

4. If, after the receipt of this advice from the Chief Inspector, the owner of the grain and the manager of the elevator cannot come to an amicable settlement, a complaint shall be made to the Board by either of the parties concerned and the Board shall make an order for settlement.

5. The Chief Inspector shall preserve both the elevator sample and the sample drawn at the time of inspection, *for such period of time* as he considers necessary and convenient.

Signed this twenty-third day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER,
Secretary.

REGULATION No. 10, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held at Winnipeg on Tuesday, the twenty-third day of September, 1930, the said board did make the regulation as set out hereunder, in accordance with section 112 of the Canada Grain Act, 1930.

PROCEDURE FOR FORWARDING TO AND EXAMINATION AND INSPECTION BY THE CHIEF INSPECTOR OF SAMPLES OF GRAIN RECEIVED IN COUNTRY ELEVATORS, SUBJECT TO INSPECTOR'S GRADE AND DOCKAGE

1. The owner of the grain and the manager or operator of the country elevator shall jointly forward the sample to the Chief Inspector.

2. On receipt of samples of grain from the manager or operator of a country elevator, or the owner of the grain, with advice as to the names of the elevator and the owner of the grain and that such grain has been received at the elevator subject to inspector's grade and dockage, the Chief Inspector shall, as soon as

practical, examine such sample or samples of grain and shall make out, in writing, a statement of his decision and shall transmit a copy thereof by mail to each of the parties to the disagreement, preserving the original together with the sample on file in his office.

3. The decision of the Chief Inspector in such cases shall be conclusive.

Signed this 23rd day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) C. M. HAMILTON,
Commissioner.

(Signed) J. RAYNER,
Secretary.

REGULATION No. 11, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held at Winnipeg on the twenty-third day of September, 1930, the said board did make the regulation set out hereunder in accordance with section 15 (h) and 48, of the Canada Grain Act, 1930.

PROCEDURE FOR APPEALS FROM INSPECTING OFFICERS TO GRAIN APPEAL TRIBUNALS

1. The freshly drawn or unload sample, if any, shall be placed before the Appeal Tribunal to examine and assign the proper grade.

2. When forwarding samples to the Appeal Tribunal the Inspecting Officer shall inform the Secretary of the Appeal Tribunal of the initial and car number of the car from which the sample was taken, the grade assigned to the sample by the Inspecting Officer and, in cases of samples taken at unloading, the name and location of the elevator where the car is being or has been unloaded.

3. The results of all appeals to Appeal Tribunals shall immediately be notified by the Secretary of the Appeal Tribunals to the Inspecting Officer who submitted the sample or samples to the Appeal Tribunal. The Inspecting Officer will then immediately advise the principal Inspecting Officer at the terminal point who will advise the operator at the elevator where the car is being or has been unloaded.

4. The Secretary of the Appeal Tribunal shall notify the Statistician of the Board of Grain Commissioners daily of all changes made in grade and/or dockage by the Appeal Tribunal stating the initial and number of the car which the sample represents, the grade assigned by the Inspecting Officer, the grade assigned by the Appeal Tribunal, and when known, the name of the elevator where the car is being or has been unloaded.

5. In cases where the identity of the grain has not been preserved appeals from the decision of the Inspecting Officer to the Appeal Tribunals may be made within thirty (30) days from date of unloading, if, at unloading a sample of the grain was taken by means of an automatic sampler, and such sample has been preserved. Applications for such appeals shall only be made by the owner of the grain or his agent in whose possession the grain is at the time of the application.

In all other cases where the identity of the grain has not been preserved and a sample was not taken at the time of unloading by means of an automatic sampler, no appeal shall be entertained except with the express authority of the board.

6. When in cases where the identity of the grain has not been preserved changes in grade and/or dockage are made as the result of an appeal to a Grain Appeal Tribunal, advice of such change will be given by the Inspecting Officer who submitted the sample or samples to the Appeal Tribunal to the principal inspecting officer at the terminal point who will then advise the operator of the elevator where the grain was unloaded. The elevator operator will issue a corrected outturn.

The principal Inspecting Officer at the terminal point will advise the Deputy Registrar of all such changes and on the presentation for cancellation of the original warehouse receipt, a corrected warehouse receipt will be registered by the Deputy Registrar.

7. No application for appeal to a Grain Appeal Tribunal can be considered after the Warehouse Receipt has been surrendered to the Registration Department for cancellation.

8. In all cases where any changes are made as the result of an Appeal to a Grain Appeal Tribunal Inspection records will be corrected accordingly and corrected certificates issued bearing the date on which the change was made.

9. Every application for appeal to a Grain Appeal Tribunal shall be accompanied by a fee of Three Dollars (\$3).

When the decision of the Inspecting Officer is upheld by the Grain Appeal Tribunal this fee shall be retained by the Board of Grain Commissioners.

In cases where the decision of the Inspecting Officer is not upheld the fee shall be returned to the applicant.

Signed this twenty-third day of September, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) J. RAYNER,
Secretary.

(Signed) C. M. HAMILTON,
Commissioner.

REGULATION No. 12, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held at Winnipeg on the second day of October, 1930, the said board did make the regulation as set out hereunder, in accordance with sections 15 (o) and 113, of the Canada Grain Act, 1930.

INTERIM ELEVATOR RECEIPT FOR GRAIN STORED AT A PUBLIC COUNTRY ELEVATOR FOR CLEANING

When grain is stored in a public country elevator for cleaning under section 113 of the Canada Grain Act, 1930, until such time as it can be cleaned, the elevator operator or manager shall issue in respect thereof a Special Bin Ticket (Form No. 1, Schedule Three of the Canada Grain Act, 1930) surcharged.

"To be cleaned before being shipped."

After the grain is cleaned such ticket shall be surrendered by the holder thereof to the operator or manager who shall then issue such ticket or tickets as may be requested or the circumstances determine.

Signed this second day of October, 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) J. RAYNER,
Secretary.

(Signed) C. M. HAMILTON,
Commissioner.

REGULATION No. 13, 1930

At a regular meeting of the Board of Grain Commissioners for Canada, held in Winnipeg on the second day of December, 1930, the said board did make the regulation as set out hereunder, in accordance with section 15 (g) of the Canada Grain Act, 1930:—

FEES

The following fees shall be payable for the various services performed by the officers and employees of the board, and shall be paid on demand by the party or parties specified hereunder:—

INSPECTION OF GRAIN

In Carload Lots—One Dollar (\$1) per car

Payable by the railway company in whose possession the grain is at the time of inspection, except that the fees for cars arriving at Vancouver, originating on lines other than the Canadian National or the Canadian Pacific Railways, shall be paid by the manager of the elevator at which the car is unloaded.

Fees for cars ex elevators at Fort William-Port Arthur and Vancouver, B.C., shall be paid by the manager of the elevator loading the grain.

Cargoes—One Dollar (\$1) per thousand (1,000) bushels

This fee shall be paid by the manager of the elevator loading the grain.

When a cargo certificate is surrendered with a request that it be split into certificates covering smaller denominations, a fee of ten cents (10 cents) per split will be charged. This fee shall be payable by the party or parties requesting the split.

Inspection after Treatment in Elevators

When inspection is requested in public or semi-public elevators on grain which has been treated for the purpose of binning with a straight grade of the first four (4) grades in Schedule 1 of the Canada Grain Act, 1930, weighed for the annual stock-taking, a fee of fifty cents (50 cents) per thousand bushels, payable by the manager of the elevator, will be charged.

Wagon or Truck Loads

When grain is delivered to or loaded out of terminal elevators at interior points or points in British Columbia, in wagon or truck loads, a fee at the rate of one dollar (\$1) per thousand bushels, with a minimum charge of ten cents (10 cents) will be charged. This fee is payable by the manager of the elevator receiving or loading out the grain.

Certificates on Unofficial Samples

On samples not officially drawn and on which an inspection certificate is requested, a fee of one dollar (\$1) per sample, payable at the time of inspection by the party or parties requesting the inspection, will be charged.

WEIGHING OF GRAIN

*In Car-load Lots—One Dollar (\$1) per car**Cargoes—One Dollar (\$1) per thousand (1000) bushels*

On cars unloaded at Fort William and Port Arthur, these fees shall be payable by the railway company in whose possession the grain is at the time of inspection.

On cars ex elevators at the Head of the Lakes and into and out of elevators at all inspection points west of Fort William, this fee shall be payable by the elevator company where the grain is weighed.

Fees for cargoes shall be payable by the manager of the elevator loading the grain.

Weigh-up

When weighing service is requested on weigh-up at semi-public or private terminal elevators, except on grain of the first four (4) grades shown in Schedule 1 of the Canada Grain Act, 1930, weighed for the annual stock-taking, a fee of fifty cents (50 cents) per thousand bushels, payable by the elevator company will be charged.

Weighing after Treatment

When grain which has been treated in a public or semi-public elevator is weighed in connection with the inspection for the purpose of binning with a straight grade of the first four (4) grades as shown in Schedule 1 of the Canada Grain Act, 1930, a fee of fifty cents (50 cents) per thousand bushels, payable by the elevator company, will be charged.

SPECIAL WEIGHING AND INSPECTION SERVICE

At all private, mill and manufacturing elevators where inspection and weighing services are required full time and the fees for such inspection and weighing services calculated at the above rates for inspection and weighing, as the case may be, do not cover the salaries paid by the board to the employees of the board for the time they are engaged at the elevator, such elevator shall be liable for the difference between the salaries so paid and the amount due calculated at the above rates.

Accounts shall be rendered and paid monthly. The excess cost of carrying out this arrangement shall be adjusted at the end of each crop year, namely August 31.

When casual weighing or inspection service is required at private, mill and manufacturing elevators, a charge of one dollar (\$1) per hour per employee who is engaged on this work, will be made.

CONDITION REPORTS

A fee of twenty-five cents (25c.) shall be paid by the applicant for each condition report requested.

UNLOAD SAMPLES

A fee of twenty-five cents (25c) to cover express charges shall be paid by the applicant for each unload sample requested to be forwarded to the primary inspection point for the purpose of reinspection or appeal in cases where the original grade placed on the sample is upheld on reinspection or appeal.

Signed this second day of December, A.D. 1930.

(Signed) E. B. RAMSAY,
Chief Commissioner.

(Signed) D. A. MACGIBBON,
Commissioner.

(Signed) J. RAYNER,
Secretary.

APPENDIX 9

STATEMENT OF REVENUE AND EXPENDITURE FOR CROP YEAR
ENDING AUGUST 31, 1930—EASTERN AND WESTERN DIVISIONS

WESTERN DIVISION

Winnipeg—

Revenue—

Inspection fees	\$124,375 00	
Weighing fees	15,132 16	
Samples sold	8,515 31	
Overtime	262 87	
Refund express	660 91	
Cargo certificates split	449 60	
Condition reports	4,302 25	
Sundries	42 76	
		\$ 153,740 86

Expenditure—

Salaries inspection	\$298,387 40	
Salaries weighing	85,402 33	
Rents inspection	24,958 00	
Rents weighing	2,040 00	
Sundries inspection	20,701 12	
Sundries weighing	889 18	
		\$ 432,378 03

Deficit \$ 278,637 17

Keewatin—

Revenue—

Weighing fees	\$ 5,420 00	
Overtime	15 00	
		\$ 5,435 00

Expenditure—

Salaries weighing	\$ 5,435 00	5,435 00
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Kenora—

Revenue—Weighing fees	\$ 1,910 00	
Overtime	182 00	
		\$ 2,092 00

Expenditure—Salaries weighing	\$ 2,092 00	2,092 00
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Peterborough, Ont.—

Revenue—Weighing fees	\$ 2,455 00	
Expenditure—Salaries weighing		2,455 00

Portage la Prairie—

Revenue—Weighing fees	\$ 3,123 50	
Overtime	4 50	
		\$ 3,128 00

Expenditure—Salaries weighing	4,924 50	
Expenses	1 50	
		4,926 00

Deficit \$ 1,798 00

Prince Rupert—

Revenue—

Inspection fees	\$ 341 00	
Weighing fees	1,172 00	
Samples sold	25 80	
		\$ 1,538 80

Expenditure—

Salaries inspection	\$ 4,567 50	
Salaries weighing	4,070 00	
Expenses inspection	49 60	
Expenses weighing	85 00	
		8,772 10

Deficit \$ 7,233 30

STATEMENT OF REVENUE AND EXPENDITURE FOR CROP YEAR ENDING
AUGUST 31, 1930—EASTERN AND WESTERN DIVISIONS—*Continued*WESTERN DIVISION—*Continued**Transcona—*

Revenue—

Inspection fees	\$ 856 75	
Weighing fees	2,952 50	
Overtime	25 85	
	<hr/>	\$ 3,835 10

Expenditure—

Salaries inspection	\$ 1,402 72	
Salaries weighing	1,941 20	
	<hr/>	3,343 92

Surplus	\$ 491 18
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Saskatoon—

Revenue—

Inspection fees	\$ 17,755 00	
Weighing fees	8,735 00	
Samples sold	682 13	
Overtime	396 25	
	<hr/>	\$ 27,568 38

Expenditure—

Salaries inspection	\$ 44,574 87	
Salaries weighing	10,954 25	
Rent inspection	2,221 03	
Sundries inspection	4,374 86	
Sundries weighing	76 40	
	<hr/>	\$ 62,201 41

Deficit	\$ 34,633 03
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Moose Jaw—

Revenue—

Inspection fees	\$ 19,431 00	
Weighing fees	9,192 00	
Samples sold	1,273 99	
Overtime	308 75	
	<hr/>	\$ 30,205 74

Expenditure—

Salaries inspection	\$ 44,964 50	
Salaries weighing	8,996 85	
Rent inspection	1,499 00	
Sundries inspection	2,182 66	
Sundries weighing	38 35	
	<hr/>	57,681 36

Deficit	\$ 27,475 62
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Calgary—

Revenue—

Inspection fees	\$ 29,116 00	
Weighing fees	13,609 50	
Samples sold	1,525 08	
Sundries		
Overtime	86 00	
	<hr/>	\$ 44,336 58

Expenditure—

Salaries inspection	\$ 39,077 90	
Salaries weighing	19,657 32	
Rent inspection	2,506 60	
Sundries inspection	3,194 00	
Sundries weighing	107 50	
	<hr/>	64,543 32

Deficit	\$ 20,206 74
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Edmonton—

Revenue—

Inspection fees	\$ 23,646 00	
Weighing fees	5,468 50	
Samples sold	1,429 38	
Sundries	25	
Overtime	32 50	
	<hr/>	\$ 30,576 63

TRADE AND COMMERCE

STATEMENT OF REVENUE AND EXPENDITURE FOR CROP YEAR ENDING
AUGUST 31, 1930—EASTERN AND WESTERN DIVISIONS—*Continued*WESTERN DIVISION—*Continued**Edmonton—*

Expenditure—		
Salaries inspection	\$ 36,912 55	
Salaries weighing	6,847 50	
Rent inspection	4,652 50	
Sundries inspection	2,989 57	
Sundries weighing	68 50	
		51,470 62
Deficit	\$	20,893 99

Vancouver—

Revenue—		
Inspection fees	\$ 54,049 60	
Weighing fees	96,779 00	
Samples sold	982 27	
Overtime	193 50	
Sundries	19 60	
		\$ 152,922 77
Expenditure—		
Salaries inspection	\$ 82,170 25	
Salaries weighing	62,140 18	
Rent inspection	360 00	
Sundries inspection	2,580 89	
Sundries weighing	985 15	
		148,236 47
Surplus	\$	4,686 30

Superior, Wis.—

Revenue—		
Inspection fees	\$ 671 00	
		\$ 671 00
Expenditure—		
Salaries inspection	\$ 4,230 00	
Expenses	43 87	
		4,273 87
Deficit	\$	3,602 87

Victoria—

Revenue—		
Inspection fees	\$ 52 00	
Weighing fees	109 00	
		\$ 161 00
Expenditure—		
Salaries inspection	\$ 160 00	
Salaries weighing	1,845 00	
		2,005 00
Deficit	\$	1,844 00

Medicine Hat—

Revenue—		
Inspection fees	\$ 6,189 21	
Weighing fees	6,890 00	
Overtime	94 00	
Samples sold	61 20	
		\$ 13,234 41
Expenditure—		
Salaries inspection	\$ 5,294 30	
Salaries weighing	6,984 00	
Rent inspection	300 00	
Sundries inspection	305 58	
Sundries weighing	202 05	
Printing and stationery	148 48	
		\$ 13,234 41

GRAIN COMMISSION

73

STATEMENT OF REVENUE AND EXPENDITURE FOR CROP YEAR ENDING AUGUST 31, 1930—EASTERN AND WESTERN DIVISIONS—Continued

WESTERN DIVISION—Continued

Fort William—

Revenue—

Inspection fees	\$194,984 20
Weighing fees	329,826 50
Samples sold	3,455 55
Cargo certificates split	11 00
Overtime	6,895 63
Sundries	1 82

Expenditure—

Salaries inspection	\$338,662 64
Salaries weighing	296,118 29
Rent inspection	9,402 60
Rent weighing	2,992 08
Sundries inspection	10,731 26
Sundries weighing	4,816 87

\$ 535,174 70

662,723 74

Deficit \$ 127,549 04

Appeal Boards—

Revenue—

Appeal fees, Winnipeg	\$ 907 50
Appeal fees, Calgary	936 00
Appeal fees, Edmonton	915 00

Expenditure—

Salaries Winnipeg	\$ 6,750 00
Salaries Calgary	4,300 00
Salaries Edmonton	4,300 00
Rent Winnipeg	540 00
Rent Calgary	336 36
Rent Edmonton	650 00
Sundries Winnipeg	127 50
Sundries Calgary	106 79
Sundries Edmonton	71 20

\$ 2,758 50

17,181 85

Deficit \$ 14,423 35

Summary—Western Division—

Revenue—

Inspection fees	\$472,366 16
Weighing fees	502,774 66
Samples sold	17,950 71
Overtime	8,496 85
Refund express	660 91
Cargo certificates split	460 60
Registration fees	16,056 12
License fees	30,750 00
Appeal fees	2,758 50
Condition reports	4,302 25
Sundries	63 83

Expenditure—

Inspection salaries	\$900,404 63
Inspection expenses	93,053 14
Inspection printing and stationery	7,718 61
Weighing salaries	519,863 42
Weighing expenses	12,302 58
Weighing printing and stationery	3,783 23
Appeal Board salaries	15,350 00
Appeal Board expenses	1,831 85
Registration salaries	16,685 26
Registration expenses	2,780 47
Registration printing and stationery ..	76 40
Grain research laboratory salaries ..	30,267 61
Grain research expenses	21,442 42
Grain research capital expenditure ..	17,222 90
Grain research printing and stationery ..	2,891 34
Western Grain Standards Board	8,716 56
Grain Commission salaries	143,370 55

\$1,056,640 59

TRADE AND COMMERCE

STATEMENT OF REVENUE AND EXPENDITURE FOR CROP YEAR ENDING
AUGUST 31, 1930—EASTERN AND WESTERN DIVISIONS—*Concluded*WESTERN DIVISION—*Concluded**Summary—Western Division—Concluded**Expenditure—Concluded*

Grain Commission expenses.....	27,021 32	
Grain Commission printing and stationery	6,181 69	
General expenses, sundries	6,451 35	
		<u>1,837,415 33</u>

Deficit \$ 780,774 74

EASTERN DIVISION

*Montreal—**Revenue—*

Inspection fees	\$ 18,830 96	
Sampling fees	8,399 12	
Samples sold	437 52	
Overtime	464 40	
Cargo certificates split	1,084 80	
Sundries	472 03	
		<u>\$ 29,688 83</u>

Expenditure—

Salaries	\$ 29,459 75	
Rent	2,313 00	
Sundries	2,307 45	
Printing and stationery	163 73	
		<u>34,243 93</u>

Deficit \$ 4,555 10

*Toronto—**Revenue—*

Inspection fees	\$ 718 00	
Sampling fees	384 55	
Samples sold	53 90	
Sundries	4 15	
		<u>\$ 1,160 60</u>

Expenditure—

Salaries	\$ 4,950 50	
Rent	660 00	
Sundries	465 41	
Printing and stationery	11 59	
		<u>6,087 50</u>

Deficit \$ 4,926 90

Eastern Standard Board—

Expenditure—Sundries \$ 346 60

Summary—

Montreal—Deficit	\$ 4,555 10
Toronto—Deficit	4,926 90
Cost of Eastern Standard Board	346 60

Total deficit \$ 9,828 60

Summary—Eastern and Western Divisions—

Eastern Division—Deficit	\$ 9,828 60
Western Division—Deficit	780,774 74

Total deficit \$ 790,603 34

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF THE INTERIOR

FOR THE

FISCAL YEAR ENDED MARCH 31, 1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief
of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the report of the transactions of the Department of the Interior for the fiscal year ended March 31, 1930.

Respectfully submitted,

THOMAS G. MURPHY,
Minister of the Interior.

OTTAWA, November 17, 1930

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REPORT OF THE DEPARTMENT OF THE INTERIOR

1929-30

Honourable Thomas G. Murphy,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the fifty-seventh annual report of the Department of the Interior for the fiscal year ended March 31, 1930.

During the period under review considerable advance was made toward the completing of arrangements for the transfer to the western provinces of the natural resources within their boundaries, but the administration remained wholly with the Department throughout the fiscal year. Broadly speaking, except for the last few months, settlement and development of all kinds went forward at a more rapid pace than in the preceding year. However, this increased activity, gratifying as it was in itself, did not alter the relative proportions of the different divisions of the work of the Department; for it must be borne in mind that services rendered by the Department of the Interior have not, for a good many years, been confined to the duties directly connected with the management of the federal domain in the western provinces. Even when the transfer is completed the Department will directly control in the Northwest Territories, Yukon Territory and National Parks an area of 1,528,000 square miles, almost two-fifths of the whole Dominion, and will also be responsible for the carrying on of the general work of conserving all natural resources placed upon it in 1921, when, at the direction of Parliament, it took over the work of the Commission of Conservation.

In the work of the Dominion Lands Administration during the fiscal year there was an increase of 1,347 in the total number of homestead entries granted, as compared with 1928-29. While the total for this year does not compare with the figures for the years of the decade preceding the war this upward trend is a satisfactory indication of renewed interest in land settlement. There was a general auction sale of school lands in Saskatchewan and smaller sales in Manitoba and Alberta and satisfactory prices were realized. Farmers and ranchers are making increased use of Dominion lands for the grazing of stock. Returns show an increase over 1928-29 of over eighty-six thousand head of live stock grazing on Dominion Government leaseholds.

There was an expansion in all branches of the mining industry in Western Canada. The rapid extension of the Turner Valley oil and gas field was one of the outstanding features and a production of well over a million barrels of petroleum was attained in the year. The bringing in of the large number of producing wells in the Turner Valley created a problem in regard to the disposal of surplus gas. The burning of such gas has taken place since 1924, but until lately it was done only for short periods in summer when the demand for gas in the cities and towns was low. So soon as the waste became continuous, joint action was decided upon by the Dominion and Alberta Governments, and a committee was appointed to investigate the situation. In its report the committee stated that the only solution that would make conservation possible was a recognition of the fact that

Turner Valley was a gas field and the formulation of rigid regulations for the purpose of controlling all phases of the gas-producing industry. The problem is still receiving consideration. In the matter of mining for metallic ores efforts were made to investigate those deposits previously located in northern Manitoba and Saskatchewan. The trend of the search for minerals appears to have been northwards, several large companies having undertaken a vigorous prospecting program in the Northwest Territories, which are being closely studied by organized expeditions based on aerial transport. However, notwithstanding the advances in the production of oils and metals, coal mining still remains the major mining industry on Dominion lands, and the amount of coal mined compared favourably with that for 1928-29. The coming into force of the new Quartz Mining Regulations added to the duties of the Supervisory Mining Engineer and his staff, entailing as it did the covering by the mining inspectors of large areas in northern and eastern Manitoba, and northern Saskatchewan, and from Hudson bay to Great Slave lake in the Northwest Territories.

The Forest Service had a season of great activity. Unusual climatic conditions during the winter of 1928-29 and the spring and summer of the following year were responsible for the fact that the forest fire situation from western Ontario through to the Pacific coast was one of the severest experienced since forest-fire protection was organized. While losses were greater than the average of the preceding five years, they were undoubtedly kept below what otherwise they would have been by the efficient organization maintained for fire prevention and fire suppression. There was a slight decrease in timber sales but there was much activity in other methods of timber disposal, and all the minor lines show an increase.

During the year a co-operative arrangement was effected by the Dominion Government and the provinces looking to a national inventory of forest resources. The Forest Service, besides working in the Prairie Provinces, has undertaken the work of compiling the returns for the whole Dominion.

Substantial progress has been made in research both on its silvicultural and industrial sides, in the latter especially in regard to pulp and paper. Important other research fields are those of the fundamental problems of forest protection from fire, the rates of growth of Canadian tree species and the better utilization of raw materials. The work of distributing trees to prairie farmers for the planting of shelterbelts continues to expand. Over 8,750,000 trees were sent out in the year to nearly 7,500 farmers and the plantations both of this and of previous years made good growth. The establishment of gardens and orchards in the shelter of these windbreaks is an important feature of prairie life. The collection of tree seed was carried on in the different provinces and over five tons was extracted and distributed, most of it to Great Britain, Australia, and New Zealand.

Steady progress was maintained during the year in the expansion and development of Canada's National Parks system. The outstanding event of the year was the acquiring of two new areas, one in Manitoba, and the other in Ontario. The Riding Mountain national park in the province of Manitoba covers an area of approximately 1,100 square miles. The other reservation, Georgian Bay Islands park, consists of a series of small islands in the Georgian Bay district of Ontario, the largest of which, Beausoleil island, is not only eminently suited as a summer resort, but is rich in legendary and historic interest.

There was a most satisfactory increase in the amount of motor travel to the different parks, over 70,000 more tourists having visited them than in the preceding year. A main factor in the steady increase of tourist travel is the fine system of trails and highways maintained in the parks. The most important highway development during the past year was the commencement of construction of the Big Bend highway between Donald and Revelstoke, B.C.

A revision of the boundaries of the parks on the eastern slope of the Rockies has been in progress. During 1927 an investigation of the eastern areas of Banff and Jasper national parks was conducted to determine the most suitable method of re-locating the boundaries from a standpoint of travel, and the preservation of wild life.

Through the establishment of an adequate system of game patrols and enforcement of the regulations, the increase in wild life has been most gratifying. Native species have re-established their numbers to such an extent that the parks are becoming more and more the wild-life reservoirs of the country.

The protection of migratory birds is a matter which receives the careful consideration of the Department, and in June last amendments were made to the regulations based on the *Migratory Birds Convention Act* following receipt of suggestions from the provincial game officers, and the chief federal migratory bird officers.

The Historic Sites and Monuments Board marked many new sites of national interest during the past year, and a great deal of restorative work was carried out in connection with the larger sites already controlled.

The past year was one of great activity in the various phases of the work of the Dominion Water Power and Reclamation Service. Water-power, which has given such impetus to our industrial life, has developed to an extent that a few years ago would have been considered phenomenal. The new construction during the year 1929 brought the total installed horse-power to 5,727,600, and the completion of work now under way will further increase this imposing figure. Developments cover practically all the provinces and all lines of industry, with a marked widening of the use of power in the domestic, municipal, mining, and agricultural fields. In the year under review, the three Prairie Provinces made a most marked advance in water-power development. Interim licences were in effect covering the Ghost site on the Bow river in Alberta, the Island Falls site on the Churchill river in Saskatchewan, and the Seven Sisters, and the Slave Falls sites both on the Winnipeg river in Manitoba. In Canada generally hydro-electric development showed no signs of slackening. Construction actually in progress should add an installation of 1,600,000 h.p. within the next three years.

International waterway matters continued in an increasing degree to engage the attention of the Branch. The Convention and Protocol signed between Canada and the United States, providing for the construction of remedial works at Niagara falls for the preservation and enhancement of their scenic beauty, was ratified by the Dominion Parliament on May 20, 1929. The Convention awaits the ratification of the United States Senate. Matters concerning other boundary waters were also dealt with.

The Dominion Hydrometric Survey embraces stream measurement throughout Canada. The records are brought together in one central agency which attends to the compilation and dissemination of stream-flow data. The uses to which the records are put are primarily in connection with water-power development and irrigation projects.

Irrigation work was pursued energetically, a reclassification of lands in the major projects was continued, together with studies of more efficient irrigation methods as applied to sugar beet growing, and other agricultural problems.

Great interest and activity was manifested in Northern Canada during the past fiscal year. The tremendous advances in transportation and communication made possible by the aeroplane and the wireless have pushed forward exploration and development into regions hitherto practically inaccessible. The possibilities of our far northern possessions as a great mining area have already attracted widespread attention, and many mining companies financially well supported are carrying out an extensive program of prospecting, and aerial

exploration for minerals. The North West Territories and Yukon Branch is charged with the responsibility of carrying out the governmental policy of broader development activities, and the present year has been an unusually active one in administration, exploration, and the dissemination of knowledge concerning the territory under its jurisdiction.

The annual expedition to the posts in the Canadian Arctic sector was carried out successfully on board the ss. *Beothic*. All posts were reprovisioned and changes effected in the personnel.

During the year a field inspection of the Mackenzie District of the North West Territories and of Yukon Territory was made by the Director of the Branch. In accordance with the policy of the Department to maintain careful supervision of the health and welfare of the natives of the region, medical services have been brought to a high state of efficiency, and several new medical stations were established during the year. Medical stations are now located at Aklavik, at the mouth of the Mackenzie; Coppermine, on the Arctic coast; Chesterfield, on the west side of Hudson bay; and Pangnirtung, on Baffin island. By co-operation with the Department of Indian Affairs, medical officers are also maintained at Fort Smith, Resolution, and Simpson, while assistance is given to the Anglican and Roman Catholic mission hospitals at other important centres.

A feature of the exploratory work completed during the year was the discovery of the breeding grounds of the blue goose on Baffin island, and the examination and patrol of the Thelon Game Sanctuary east of Great Slave lake. The selection of the 3,000 Alaskan reindeer intended as the nucleus of herds to be established for the benefit of the natives in Arctic Canada was made during December, 1929, and the overland movement to the Mackenzie delta begun.

During the year, seven meetings of the Northwest Territories Council were held, and many important matters pertaining to development and to the maintenance of the native population were dealt with.

The revenue from the administration of the *Northwest Game Act* increased to the extent of \$15,619.31 over the amount received during the previous year.

All branches of survey work—geodetic, topographic, aerial, and boundary—carried on by this Department are co-ordinated under the Surveys Bureau, in charge of the Director General of Surveys.

Every phase of the work of the Geodetic Survey was advanced during the year. The geographical positions of an increased number of geodetic stations were determined with the highest attainable accuracy. These are required as basic control for Canadian mapping operations. Triangulation nets and precise traverses were extended and base lines for length control in triangulation were measured with first-order accuracy. Bench-marks were established over an increased mileage along railways and highways throughout Canada. Field parties of the Levelling Division operated in five provinces.

Steady progress is being made by the Topographical Survey in the mapping of the Dominion. The field work of this branch includes ground surveys, aerial surveys, legal surveys, land classification work, and interprovincial boundary surveys. The work of issuing maps of the newer parts of Canada, where development is particularly active, is being greatly assisted by the use of aerial photographs. Field operations were carried on in all the provinces and in the Northwest and Yukon Territories. The area covered by newly issued maps was 106,302 square miles. The Physical Testing Laboratory carried out a number of important investigations in addition to its regular work of testing, readjustment, and certification of the various scientific instruments.

The importance of aerial photography in the production of maps and in furthering exploration and development is seen in the increasing demands for this service. During the past year 48,025 square miles were covered by oblique and 26,230 square miles by vertical photographs.

The Canadian and United States members of the International Boundary Commission held two conferences during the past fiscal year. The first took place in Washington in April, when a division of the field work to be done during the summer was made, and the second in Ottawa in November, when the joint reports required by the treaty of 1908 were considered.

The Dominion Observatory at Ottawa and the Dominion Astrophysical Observatory at Victoria, B.C., each carried out a very full program of observations. Investigations were continued in the fields of seismology, terrestrial magnetism, and stellar spectra photometry. A number of scientific publications were issued. The Astrophysical Observatory completed the program of observation of Wolf-Rayet stars, begun in 1927.

The work of the National Development Bureau, formerly designated the Natural Resources Intelligence Service, expanded along its several lines of activity. In the field of industrial surveys special investigations were carried out in regard to the utilization of raw materials and products of specified areas. During the past fiscal year, departmental co-operation was solicited by the boards of trade of nearly all the principal cities of the western provinces, and a comprehensive industrial survey was made of the Border Cities district in Ontario. Numerous inquiries were received during the year both from this country and abroad, covering a wide range of resources and industrial subjects. The domestication of fur-bearing animals has centred interest in Canada's fur resources and, based on the information gathered on this important industry, a number of reports were issued.

Tourist traffic is now recognized as one of the major factors in Canadian development. In order to maintain and increase this important industry every effort is made to furnish the prospective tourist with authentic information in regard to Canada's recreational facilities. By means of a wide distribution of informative publications, co-operation was maintained with practically all trade and travel organizations of importance in different countries.

The importance of economic geography in relation to national progress is now generally recognized. Extensive investigations in this field were carried out, as a result of which many of the series of economic maps were revised, and a number of new maps issued. Considerable progress was made in the preparation and issue of official maps of Canada.

The technical plant is increasingly made use of by this and other federal departments. The photographic library covers all fields of development in Canada and is constantly kept up to date. Photographs for reproduction purposes are in great demand by syndicate newspaper services, chambers of commerce, trade commissioners, and other organizations at home and abroad.

Outlines of the work of the several branches of the department follow.

DOMINION LANDS ADMINISTRATION

Lands Patents

Letters Patent.—The number of letters patent issued during the fiscal year was 5,997, covering an area of 832,665 acres, made up by provinces as follows:—

Province	Patents	Acres
Manitoba.....	604	81,898
Saskatchewan.....	2,621	376,784
Alberta.....	2,338	349,240
British Columbia.....	425	24,558
Yukon Territory.....	2	180
Northwest Territories.....	7	5
Totals.....	5,997	832,665

DEPARTMENT OF THE INTERIOR

Homestead Entries.—Seventeen thousand five hundred and four (17,504) homestead entries (including 4,952 second homesteads) were granted during the year, aggregating an approximate area of 2,800,640 acres, being an increase of 1,347 in the number of homesteads granted as compared with the previous year.

By provinces the entries were made up as follows: Manitoba, 727; Saskatchewan, 6,089; Alberta, 9,795; British Columbia, 893; total, 17,504.

There were 720 soldier grant entries made during the year, aggregating an approximate area of 115,200 acres, made up by provinces as follows:—

	Number of entries	Acres
Manitoba.....	19	3,040
Saskatchewan.....	224	35,840
Alberta.....	422	67,520
British Columbia (Railway Belt and Peace River Block) ..	55	8,800
Totals.....	720	115,200

There were 4,952 second homestead entries made during the year, aggregating approximately 792,320 acres, made up by provinces as follows:—

	Number of entries	Acres
Manitoba.....	182	29,120
Saskatchewan.....	2,061	329,760
Alberta.....	2,470	395,200
British Columbia (Railway Belt and Peace River Block) ..	239	38,240
Totals.....	4,952	792,320

Refunds.—Value of improvements collected on cancelled homesteads—762 refunds—\$41,447.81.

Newly Surveyed Lands Thrown Open to Homestead Entry.—Newly surveyed lands included in 37 townships were made available for homestead entry as follows:—

Province	Number of townships
Manitoba.....	4
Saskatchewan.....	3
Alberta.....	28
British Columbia.....	2

School Lands

During the fiscal year ended March 31, 1930, school lands were disposed of by public auction and private sales in the provinces of Manitoba, Saskatchewan, and Alberta as follows:—

Province	Area in acres	Value	Average per acre
Manitoba.....	4,230.97	\$ 50,403 19	\$ 11 91
Saskatchewan.....	372,010.73	5,435,353 70	14 61
Alberta.....	28,676.93	345,992 43	12 06

The approximate net areas disposed of to March 31, 1930, after making deductions for cancelled sales and adjustments in regard to changes in area, were as follows:—

Province	Area in acres	Value	Average per acre
Manitoba.....	635,480.74	\$ 6,101,913 80	\$ 9 60
Saskatchewan.....	2,119,796.68	33,198,820 73	15 66
Alberta.....	1,234,647.53	17,554,966 53	14 22

The revenues collected for the fiscal year (less principal moneys and less expenditures) and paid over to the provinces were as follows: Manitoba, \$87.18; Saskatchewan, \$303,535.75; Alberta, \$411,983.77.

The amounts of interest paid in the fiscal year on the investments to the three provinces were as follows: Manitoba, \$294,525; Saskatchewan, \$835,225; Alberta, \$459,175.

Mining Lands

The report of the Mining Lands Division for the fiscal year 1929-30 shows that the total revenue for the year (\$1,638,597.74), was over half a million dollars greater than in 1928-29. The collection of royalty from the petroleum industry began on January 1, 1930, and over \$30,000 was collected on this account during the last three months of the fiscal year.

In the Northwest Territories continued interest was maintained in prospecting for minerals under the provisions of the Quartz Mining Regulations. Development work was done on certain properties situated south of Great Slave lake. New discoveries were made in the vicinity of Great Bear lake and other points. An Order in Council was passed making available for location on July 1, 1930, an area of land in the vicinity of the Coppermine river which had been under reservation for a number of years.

In Yukon Territory the concentrating mill of the Treadwell Yukon Company Limited, operated during the whole year. This is situated at Keno, Mayo district. The value of the minerals produced from this district was over \$2,000,000. Placer mining with dredges and by the hydraulic method of mining continued in Yukon Territory, but the output from quartz mines in the Mayo district now exceeds the value of the production from the placer mines.

The mill of the Central Manitoba Mines Limited, in the province of Manitoba, operated continuously, and that province before the end of another year will witness the completion of the extensive mill and smelter constructed by the Hudson Bay Mining and Smelting Company Limited, to treat the ores from the Flin Flon mine, and this plant will also treat the ores from the Sherritt-Gordon mine.

Owing to new discoveries of oil and to the interest taken by companies from other parts of the world, an increasing interest was manifested in the oil fields of Alberta, but the production of coal from mines in Alberta remained the principal mining industry on Dominion lands.

Timber and Grazing

Due to the unusual circumstances which prevailed during the past fiscal year, and which were particularly felt in the western provinces, there was a decrease of \$256,990.94 in the revenue from timber, grazing, and hay lands as compared with 1928-29. Compared with the previous year, there was a marked advance in the quantities of lumber manufactured, the increase over that of last year being over 60,000,000 feet board measure, but owing to the business depression in the latter part of the year, a large portion of manufactured material remained unmarketed. As a consequence of these conditions, the revenue from licence and permit berths was considerably reduced.

The grazing regulations established in the year 1925 allowing for the granting of twenty-one-year leases have given a decided impetus to stock raising. Stock returns from approximately 95 per cent of the present leaseholders show a number of stock grazing on leaseholds on Dominion lands to be considerably in excess of any previous year.

A continued increase in the number of hay permits issued, together with the number of tons cut, was recorded during the past fiscal year, accounting for an increase in revenue from this source amounting to \$3,799.58 over the previous year.

DEPARTMENT OF THE INTERIOR

Ordinance, Admiralty, and Public Lands

The fiscal year 1929-30 was one of activity from the standpoint of administration, the main efforts being directed towards the securing of information relative to titles and to complete the records it was necessary to conduct investigations in several of the registry offices.

The revenue for the year shows a substantial increase, and from the sale of fractional areas and accrued lands there was derived the sum of \$98,012.90 in comparison with \$52,472.74 for the previous year. The revenue from Ordinance lands amounted to \$30,308.90 an increase of \$5,478.81 over the fiscal year 1928-29.

In the past, grants of land had been made by Parliament to railway companies to aid in the construction of colonization railways, and claims were subsequently made by the companies that they were entitled to the mineral rights, in addition to the surface rights, and the question became the subject of decision by the Imperial Privy Council. As it was ruled that title to the minerals should pass to the aforementioned companies, many difficulties had to be overcome before patents could issue. The completion of this work required considerable research, as the grants amounted to 31,784,610 acres.

New applications to purchase land numbered nearly five hundred, and sales were consummated in 320 cases, covering a total of 12,882 acres.

SUPERVISORY MINING ENGINEER

The fiscal year has been one of great activity in the various fields of mining enterprise which have grown up of late on lands under the administration of the department, namely, those associated with the search for, development and production of metals, coal, petroleum and natural gas. This activity has been particularly marked in the case of metals and oil and gas, which have attracted very great interest on the part of operators, following on the favourable results chronicled in the annual report for 1928-29.

The area over which prospecting for minerals under the Quartz Mining Regulations was carried on was much extended, largely owing to the successful application of the aeroplane both for transport and for reconnaissance purposes. In this manner operations were carried far into the Northwest Territories and a number of interesting mineral occurrences of economic importance were noted. Development work proceeded on a number of properties already acquired, notably in northern Manitoba and Saskatchewan, the construction work at the Flin Flon and Sherritt-Gordon mines, and on the power plant at Island Falls, making marked progress and bearing witness to the importance of these undertakings. The one producing property was that of the Central Manitoba Mines, Limited, at Long lake in the Rice Lake division of the Winnipeg mining district.

The new Quartz Mining Regulations came into force on April 1, 1929, and were found to function smoothly and to receive general approval. To meet the requirements of the growing activity in the Winnipeg district an office, subsidiary to that already in existence at The Pas, was opened at Winnipeg.

Coal mining operations were continued on the same scale as hitherto in Alberta and Saskatchewan. Prospecting in certain areas, notably north of Luscar and on the Kipp-Retlaw extension of the Canadian Pacific Railway, met with success, discoveries in the latter area being brought to the production stage. Briquetting of Saskatchewan coals now appears to be established as the basis of a permanent industry, a ready market being found for the briquettes in Winnipeg and elsewhere.

In connection with petroleum and natural gas, Turner Valley and other areas in Alberta became the scene of great drilling activity, already foreshadowed towards the close of the previous year. Although many of the new wells started were subsequently suspended, the number reaching the limestone, in which occurs the naphtha-laden gas of Turner Valley, enabled the productive area to be much increased. Every well drilled into the limestone encounters gas, the production varying considerably in different wells. The total production of naphtha exceeded one million barrels, this being by far the most important product utilized.

The systematic testing of other areas was prosecuted with equal vigour by means of detailed geological mapping, test drilling, and deep drilling; and geophysical methods of prospecting were introduced. Operations have been successful, production being increased in areas already established; other structures have been recognized and are in process of further testing; and an important new area proven and brought into production at Red Coulee, five miles west of Coutts.

A matter of much concern to the Department ever since the discovery of the Turner Valley naphtha-laden gas has been the waste of much of the gas after it was separated from the naphtha. This waste, so long as it was largely seasonal, did not appear to consist of a product that could be marketed, although the matter was kept under careful investigation. When, however, during the winter of 1928-29 the volume produced became such as to result in waste on a large scale, a joint committee of Dominion and Provincial Government officers was appointed to go into the matter and report.

FOREST SERVICE

The transfer to the western provinces of their natural resources will result in a very considerable change in the duties of this branch of the department by relieving it of a large part of its administrative responsibilities and permitting it to expand its investigative and advisory work. Substantial progress has already been made in silvicultural, economic, and industrial research through the work of the Silvicultural Research Division and the Forest Products Laboratories. Important fields for further investigation are the fundamental problems of forest fire protection, the rates of growth and other silvicultural characteristics of Canadian tree species, the better utilization of the raw materials furnished by Canadian forests, and the Dominion-wide forest inventory.

Owing to almost unprecedented meteorological conditions during the winter of 1928-29 and the spring and summer following, the forest fire situation from western Ontario through to the Pacific coast was one of the severest ever experienced since forest fire protection was organized. Efficient fire protection, however reduced losses to a figure that, while considerably greater than the average of the preceding five years, was much less than might have been expected from the unusual conditions.

During the year a co-operative arrangement was effected by the Dominion Government and the provinces, looking to a national inventory of forest resources. The Forest Service, besides working in the Prairie Provinces, has undertaken the work of compilation of the returns for the whole Dominion. It is hoped to have the work completed in about five years.

The revenue for the year shows a decrease, mainly attributable to a falling off in the revenue from timber sales in Saskatchewan. In other methods of timber disposal, much activity was shown and minor sources of revenue generally show increases.

The use of the forest reserves for purposes of recreation continues to increase, and additional facilities were provided for this purpose.

Forest surveys were continued in Manitoba and Saskatchewan, particular attention being given to the work of a forest inventory of the former province.

At the extracting plant at New Westminster, B.C., five and one quarter tons of seed were extracted from 8,800 bushels—about thirteen carloads—of cones; of this amount two and one quarter tons were sent to Great Britain for the use of the Forestry Commission, and further large quantities to the Irish Free State, New Zealand and Australia.

The number of active timber sales shows a considerable increase, though the revenue from this source decreased somewhat owing to restricted operations under existing market conditions.

The unfavourable weather conditions made this season an unpropitious one for work at the Indian Head and Sutherland nursery stations, and for newly set out tree plantations on the farmsteads throughout the Prairie Provinces. Established plantations came through the season well. The interest of farmers in ornamental trees, shrubs, flowers, lawns, and fruit trees is growing; shelterbelts for the protection of field crops are slowly increasing in number and their benefits are being experienced. The total number of broad-leaved trees distributed (to 6,486 applicants) was 8,673,650, and of conifers (pine and spruce) 138,700 were sent to 966 applicants.

Research work at the Indian Head nursery station received much attention. Many experimental plantations were surveyed and plotted; the effects of mixing different species were studied, as was also the effect of field-shelters on grain crops. In the sphere of forest pathology an intensive study was begun of poplar canker, and "damping-off" is also being investigated. Tests of apples, plums, and bush-fruits grown under the protection of shelterbelts are being carried on both at Indian Head and at Sutherland.

Exceptional activity has characterized the work of the Forest Products Laboratories at Ottawa, Montreal, and Vancouver. Several important investigations were carried on jointly at the Ottawa and Vancouver laboratories; in one of these investigations the department was pleased to have the co-operation of the British Forest Products Laboratory at Princes Risborough, England. The Pulp and Paper Laboratory at Montreal continued and enlarged its work in close co-operation with the pulp and paper industry.

The Silvicultural Research Division of the service continued its sample-plot work at the Forest Research Stations and took an important part in the Dominion-wide forest survey. Considerable progress was made in the work of investigating fire-weather conditions, carried on at the Petawawa Forest Experiment Station.

The chief publication of the year was a collection of *Form-class Volume Tables*, embodying the result of several years of work in forest mensuration.

Publicity activities included a newspaper advertising campaign in the interest of forest fire prevention, lecture work in boys' and girls' summer camps, and exhibits at fairs and exhibitions in Western Canada.

NATIONAL PARKS

During the year two new areas were added to the National Parks system. The first of these is the Riding Mountain national park in Manitoba. It consists of over 1,100 square miles of rolling woodland and lake country, rising into a rugged tableland and rocky forest-clad ridges. Beautiful lakes with fine bathing beaches, and a natural abundance of wild life add to its attractions, while its accessibility to through motor highways makes it very desirable from the tourist point of view. There seems no doubt that this reserve will serve the recreational requirements of a large section of the West, and conserve for future generations a typical example of some of the most interesting scenery of this part of Canada.

The second reservation was the Georgian Bay Islands park among the Thirty Thousand Islands of the Georgian Bay region of Ontario. This consists of a number of small areas, all islands, as in the case of those set aside many years ago among the Thousand Islands of the St. Lawrence river. Of recent years the islands have been so rapidly taken up that it was felt desirable some permanent provision should be made for public access to and enjoyment of this beautiful region. The largest reservation, Beausoleil island, is eminently suited to become a resort. In addition to fine bathing beaches and beautiful groves, it possesses legendary and historic interest.

From the tourist traffic point of view the parks had a most successful year with a total increase in travel of over 70,000. The growth of motor travel continues to be the outstanding factor in tourist business and there was an increase in the number of motorists visiting the parks.

The most important highway development during the year was the beginning of construction on the Big Bend road. This section will overcome the barrier of the Selkirks and supply the last link in the western half of the All Canada Highway. The route selected, instead of crossing the Selkirks, follows the valley of the Columbia river in its great arc about these mountains, and so avoids the engineering and climatic difficulties that would have been involved by a route crossing them direct. To facilitate the building of the highway the federal Government agreed to construct the eastern leg of the road, from Donald, to Boat Encampment, a distance of approximately ninety-five miles, while the provincial Government is building the western half.

Clearing and bridge construction, which was begun by the Highway Division of the National Parks Branch early in the autumn, was continued as long as weather conditions permitted, and begun again as soon as the snow disappeared. The provincial Government is also prosecuting its section with vigour and it is expected that the whole road will be ready by 1932. The completion of the highway will mean much to the future development of Western Canada. A through way will then be open to motor travel from the prairies to the coast with a consequent benefit to both. The outstanding magnificence of its scenery and the fact that it will give direct access to five national parks should make this one of the great scenic routes of the country and attract an increasing volume of foreign travel.

WATER POWER AND RECLAMATION

International Waterway Matters.—The responsibility of the Minister of the Interior to advise the Government with respect to international waterway problems is steadily increasing and the Dominion Water Power and Reclamation Service is called upon to devote more and more time to these points. Amongst new matters arising was the application of the West Kootenay Power and Light Company to the International Joint Commission for permission to construct and operate works on the Kootenay river for the purpose of storing water in and regulating the outflow from Kootenay lake.

Water-Power.—The outstanding feature of the past year was an even greater activity in water-power development in the Prairie Provinces than was noted in the last report. Interim licences were in effect covering the Ghost site on the Bow river in Alberta, the Island Falls site on the Churchill river in Saskatchewan, the Seven Sisters and the Slave Falls sites, both on the Winnipeg river in Manitoba. These sites, with an ultimate designed capacity of 345,000 horse-power, were scenes of intense construction activity during the year. The Ghost development was completed and power produced during the past winter, the Island Falls development was so far advanced by the end of the fiscal year, it was expected that power would be available within two or three months, whilst at Seven Sisters and Slave Falls construction was proceed-

ing according to schedule. In Canada generally hydro-electric development showed no signs of slackening, for although the new turbine installation completed during 1929 of 378,000 horse-power was slightly lower than for 1928, a great deal of new work was started. In fact, construction actually in progress should add an installation of 1,600,000 horse-power within the next three years, with a further 1,500,000 horse-power when these installations are brought to their ultimate designed capacities. This new construction and the further developments not yet commenced but in early prospect, ensure a steady increase in the utilization of Canadian water-power for some years to come.

Irrigation.—A dry, hot summer following a spring of subnormal run-off, characterized the season of 1929 in southern Alberta and southwestern Saskatchewan. Such conditions caused a considerable demand for water for irrigation purposes, a demand which was fully met on the larger projects where canal and reservoir systems are designed to render the districts independent of seasonal climatic conditions. Harvest conditions were ideal and little loss was occasioned by frost. Some 912,000 acre-feet of water were diverted from the St. Mary, Oldman, Bow, and Belly rivers into the canal systems of eight major irrigation projects, where crops valued at more than eight million dollars were grown on 490,000 acres under cultivation. Of this area 260,000 acres were irrigated during the season.

Drainage.—During the past year the weather was exceptionally favourable for construction work in connection with drainage development as precipitation was somewhat below average. The Dominion Water Power and Reclamation Service made field investigations and inspections of seventy-four private drainage schemes under the provisions of the Dominion Drainage Regulations, and twenty-four new applications for small schemes were dealt with. Since 1919 one hundred and eighteen such schemes have been carried out and a very considerable area has been reclaimed and utilized for agricultural purposes. Several field investigations were made of proposed provincial drainage districts in Alberta and Saskatchewan. The Roseau River flood prevention and reclamation project was fully investigated by intensive surveys, and complete topographic maps prepared. The western scheme of the Manitoba Dairy Farms Limited was inspected. Satisfactory progress was made in constructing drainage works for the Low Water Lake project. The fur-farming leases issued totalled ninety-four and comprised 33,346 acres.

NORTH WEST TERRITORIES AND YUKON

The past fiscal year was marked by the exceptional interest manifested in northern Canada. The development of aviation as a means of transportation has made possible the reaching of regions hitherto deemed practically inaccessible. The activity in Arctic exploration, the proposals to establish international air routes between Europe and America by way of Greenland and other Arctic islands, and the quest for northern furs and minerals have been responsible for the desire for a more intimate knowledge of our northern possessions. In carrying out the department's policy of broader development activities the work of this branch has been considerably increased in scope, both in regard to administration, and the dissemination of knowledge to the general public.

The Northwest Territories Council held seven meetings during the year at which many important subjects were dealt with, including the redrafting of game regulations, grants for the protection of native orphan children, and to assist the operation of schools, hospitals, and the establishment and maintenance of medical services, together with other matters affecting Canada's Northland.

The annual expedition to the Arctic Archipelago on the ss. *Beothic* was carried out successfully despite the fact that climatic conditions were dis-

tinently unfavourable. All the northern posts were reprovisioned and the required changes in the personnel were satisfactorily effected. At all of the places visited during the patrol conditions among the natives were found to be good, and the general health of the respective communities excellent.

During the year the Director conducted a special investigation of the posts and settlements in the Mackenzie District and Yukon Territory with a view to securing first-hand information of the rapidly changing conditions in order to advise on needed adjustments in administrative procedure.

Explorations were carried out in regard to the fauna of southwestern Baffin island, and an investigation was conducted in connection with the musk-oxen in the Thelon Game Sanctuary. With respect to reindeer a thorough investigation proved that large areas in Mackenzie District were suitable for the grazing of these animals. As a result of this and other information it was decided to purchase 3,000 head of reindeer in Alaska. The movement of these animals was begun late in 1929, and they are now being driven across country to the Mackenzie delta. Necessary arrangements are being made for the reception of the herd.

The engineering staff of the branch compiled the field notes of the various explorers and investigators. A number of surveys were made in different parts of the Territories including one of the Arctic Red River settlement.

Field medical services have been brought to a high state of efficiency, and several new medical stations were established at strategic points. In addition the Department co-operates with other Dominion Government services in maintaining medical officers at the chief settlements along the Mackenzie river.

To meet the ever increasing demand for information respecting Yukon and Northwest Territories the branch issued a number of timely publications containing authentic data with regard to inhabitants, resources, climate, transportation, and related matters.

Wild life is steadily increasing, and the larger bounty on wolves and coyotes has been instrumental in reducing to a considerable extent these predatory animals, with a resultant benefit to other forms of wild life.

The revenue derived from the administration of the *Northwest Game Act* was \$66,760.35 as compared with \$51,141.04 collected during the fiscal year 1928-29, representing an increase of \$15,619.31.

Yukon.—As a result of the deliberations of the Yukon Council several important amendments were made to existing ordinances, and new ordinances were passed regulating the hours of labour in placer mining operations, while the usual administrative details were dealt with.

Public welfare was maintained at the usual high level, the schools and hospitals being conducted in a most efficient manner, and the general health of the residents was good throughout.

The season was very good from an agricultural standpoint, an abundance of moisture resulting in large yields of high grade produce.

The Territory sustained its reputation as a Mecca for both hunters and tourists. Big game was reported as very plentiful, and many fine specimens were taken.

OBSERVATORIES

Dominion Observatory, Ottawa

Observations with the meridian circle were obtained on 196 days. In the regular program there were obtained 2,646 measurements of right ascension and declination of program, clock, and azimuth stars; 52 of planets; and 135 of the moon; also 1,039 sets of measurements of nadir and other instrumental constants. In addition to the regular program, observations were made during January with

a three-inch Cooke transit for the purpose of investigating possible errors of a systematic nature. The time service, comprising 4 primary clocks, 15 secondary clocks, 600 minute-dials, 18 second-dials, 2 tower clocks, and various relays, chronographs, and seismograph shutters, was maintained as usual; in addition 253 clocks, watches, and other time mechanisms were overhauled for other branches and departments of the government service. Wireless time signals were received regularly from England, the United States, Germany, and France. Three sets of time signals were sent out daily, one through the local broadcasting station, CNRO, and two directly from the observatory on short wavelengths. The synchronome clock was received in January and installed in the clock vault, where its rate has proved to be almost constant and free from the sudden small changes usual to sensitive master clocks.

With the eighty-foot coelostat reflecting telescope and the twenty-three-foot spectrograph, 235 observations (each containing 9 strips of spectrum) of solar limbs, midway and centre, together with iodine comparison lines, were obtained. Direct photographs were made of the nine-inch solar image on 110 occasions, recording sunspots and position lines; prints of these were supplied to the Radio Branch, Department of Marine, in connection with the study of sunspot effects on radio reception. About 430 spectrograms were measured and as many computations made of solar radial velocity and heliographic positions. Charts and information relating to long-period variations in terrestrial and astronomical phenomena were prepared in connection with an investigation of fluctuations in wild life.

The fifteen-inch equatorial was employed in the continued study of Cepheid variables and several selected spectroscopic binaries. With the spectrograph attachment 144 spectrograms were obtained, mostly of ϵ Aurigae, 1 Geminorum, η Aquilae, β Lyrae, ζ Ursae Majoris and η Virginis. η Virginis proved to be an interesting triple system with evidence of marked perturbations. The spectrograms were measured and reduced, and in collaboration with McGill University a thorough investigation of the variables α Ursae Minoris and R T Aurigae was carried out with a Moll microphotometer. The photo-electric photometer attachment was overhauled and a number of mechanical changes effected in order to increase its sensitivity. As usual the equatorial telescope was made available on Saturday nights for observations by the public.

In photographic photometry, observations on the revised list of Cepheid fields were continued for the purpose of obtaining charts of fields of the variables. Copies of charts for thirty-two fields were completed for distribution to the various co-operating observatories. Observations were also made for the determination of the light curves, and 185 plates obtained. Measurements of the magnitudes of some of the variables on the original program were continued. Tables were computed for the prediction of occultations by a semi-graphical method.

The seismographs at Ottawa, Saskatoon, Halifax, Shawinigan Falls, and Seven Falls were in practically continuous operation, and during the year 434 earthquakes were recorded, of which thirty-one were reported to the press and, by telegraph, to Science Service, Washington. Tremors of marked intensity originated in the Aleutians, in New Zealand, New York State, Alaska and at the Grand Banks off Newfoundland. The last mentioned caused serious damage and is being made the subject of a special investigation through the collection of original seismic records from the many stations scattered over the globe, and local information by questionnaire and correspondence. The seismologist was attached to a prospecting party in Turner valley, Alberta, in January for the purpose of noting the routine and results of underground investigation by modern seismic methods. Arrangements were made with the Royal Canadian Mounted Police and the Department of Marine and Fisheries for reporting earthquakes occurring in the Arctic, in connection with a continent-wide scheme of investigation.

In terrestrial magnetism determinations of the three magnetic elements, declination, inclination, and horizontal intensity, were made at six stations which were established by the Carnegie Institution in 1913 (three of which were exact reoccupations and three approximate) and at four new stations, along the water route between Sioux Lookout and Fort Albany on James bay by way of lac Seul and the Root and Albany rivers, in the area between longitudes 80° W. and 95° W. and latitudes 50° N. and 53° N. Similar determinations were also made in the vicinity of two known fault lines near Ottawa, in conjunction with torsion balance surveys for the investigation of the applicability of geophysical methods in prospecting.

In connection with the gravity observations reported last year for Greenwich, Potsdam, Washington, and Ottawa, to redetermine the adopted international standard values, a series of observations was made to determine the temperature co-efficients of the three pendulums used, and the final results were computed, completing a fairly rigorous connection between gravity values in Europe and North America. The value obtained for Greenwich agrees well with earlier determinations, while the new values for Ottawa, and Washington are slightly higher than those previously accepted. Considerable progress was made with the computations of unpublished observations of some fifteen field gravity stations in 1927. Following the recent investigations of modern European methods of geophysical prospecting, undertaken in collaboration with the Department of Mines, a torsion balance purchased by the Geological Survey was tested at the observatory and used for making traverse surveys of certain geological structures in the vicinity of Ottawa, instituting an investigation of the applicability of the torsion balance to mining in Canada.

The American Astronomical Society held its forty-second meeting at the observatory from August 26 to 29. Professor E. W. Brown of Yale University, President of the Society, presided over the proceedings. Forty-eight technical papers were read and discussed, thirteen of which were contributed by members of this observatory, five by the staff of the Victoria observatory and four from other Canadian sources. At an informal reception the visiting astronomers, some seventy-five in number, were given facilities for inspecting the work of the observatory.

Seven of the regular series of Dominion Observatory publications were issued and distributed, Vol. VII, No. 4, *Location of Epicentres, 1923-4-5*; Vol. VIII, No. 9, *Gravity in Western Canada*; Vol. IX, No. 6, *The Castor System*; Vol. IX, No. 7, *A Study of Eta Aquilae, Second Paper*; and Vol. X, Nos. 1, 2 and 3, *Bibliography of Seismology*.

The Bibliography of Seismology, issued quarterly as a publication of the observatory, takes the place of the *Bibliographical Bulletin*, formerly issued under the auspices of the eastern section of the Seismological Society of America, but compiled and edited at the observatory.

Dominion Astrophysical Observatory, Victoria, B.C.

This is the twelfth annual report of the work of this institution, which commenced actual operations on May 6, 1918. The details of the work are published in complete form in the publications of the observatory. Three volumes of these publications and fourteen numbers of Volume IV have been issued, while three more numbers are in press.

As in previous years, the whole time of the telescope, except two hours for visitors every Saturday evening, was devoted to photographing stellar spectra. The observing weather was considerably above the average even exceeding that of last year. The eleven-year average shows that on 207 nights with a total exposure time of 1,259.4 hours there were secured 1,558 plates. While the

number of plates secured in the past year, 1,133, is considerably fewer than the average, this is a necessary consequence of the investigations being carried to increasingly fainter stars which require longer exposure. A better index is the total observing time; on 223 nights during the past year the total was 1,497.1 hours, which is about 19 per cent above the average.

The investigation of all B type stars brighter than 7.50 and north of declination -11° which has been in progress since 1924 was completed during the year. This program involved the observation and measurement of 3,500 spectra of 550 stars. Following the completion of the manuscript for publication a general catalogue was compiled. This catalogue contains 1,560 entries for 996 stars; 458 of the stellar velocities (46 per cent) were determined solely at this institution, these being for stars fainter than 5.50.

Preliminary solutions for the K term and galactic rotation for the O and B type stars were made. It was found that the K term vanishes for stars fainter than the 6th magnitude. It seems likely that this hitherto unexplained term in radial velocity is caused by group motion of recession of the bright stars in the southern hemisphere—brighter than 5.50. The nearest group of stars B3-B5 brighter than 5.50 does not show a galactic rotation but the other more distant groups show a decided rotation about a distant centre in galactic longitude 326° in the direction of the constellation of Sagittarius. This research confirms the hypothesis of Lindblad and Oort.

The motions and distribution of the interstellar gases were determined from observations of the interstellar lines H and K in the spectra of 261 O to B2 stars. The determination of the sun's velocity and apex relative to the interstellar matter gave values in good agreement with the elements determined by Campbell for 2,149 naked-eye stars. The calcium cloud has no K term. The solutions for galactic rotation show conclusively that this diffuse interstellar matter is in rotation about the same distant centre in galactic longitude $332^{\circ} \pm 6^{\circ}$. Further by solving concurrently for the distances of the interstellar matter and the stars in whose spectra the lines are observed, it was shown that the interstellar matter is uniformly distributed throughout space. The rotational co-efficient for the stars has exactly twice the value of that for the clouds, thus confirming Eddington's hypothesis of uniform distribution.

Further solutions of the motions of the O and B type stars are now being made to deduce final values for the solar motion K term and galactic rotation.

About 450 spectra were secured during the year on the A-type program, among which number there were spectra of roughly 100 stars of which previously we had no spectrum. The remainder were additional plates for other stars. Slightly over 500 were measured during the year for radial velocity, a few having to do with spectroscopic binaries. We have now the spectra of about 1,100 A-type stars to be used later for spectroscopic parallax work.

The orbits of two A-type stars, Boss 613 and H.R. 3352, were completed during the year but not published. A revision of the elements of the binary 19 Draconis was made as recent observations suggested a slight correction to the period formerly adopted. A number of spectrograms of the B-type binary star H.D. 185936 were remeasured and a satisfactory period in the neighbourhood of 2.5 days deduced.

Observations of the eclipsing variable Y Cygni were continued. Calculations of the orbital elements for the years 1919-21 and for 1928-29 show clearly the rotation of periastron detected by other methods. Further the quantitative

agreement with the latest photometric results by Professor R. S. Dugan of Princeton is good, in view of the accuracy of the observation. A marked change was found in the velocity of the system, indicating the presence of a third body with a spectrum too faint to be observed.

Measurements were made of the radial velocities of 209 faint K stars near the galactic equator and 15 near the galactic pole. An analysis of the velocities giving the solar motion and galactic rotation effect for these stars agrees with the results derived by other astronomers from proper motion data. It is found that the peculiar velocities of these K stars are high (four have been observed greater than 100 km./sec.) and they show definite signs of stream motion. Observations are being continued in order to place these conclusions on a firmer basis.

A spectroscopic study of two semi-regular variables SV Ursae Majoris and V Ursae Minoris was commenced.

The program of observation of Wolf-Rayet stars, begun in the fall of 1927, was completed. Analysis of the complete data made it possible to formulate a theory concerning the physical nature of these peculiar objects. This theory attributes the broad band emission spectra of Wolf-Rayet stars to the continuous ejection of gaseous material from the stellar surface by selective radiation pressure. A new system of classification has been devised for the Wolf-Rayet stars which defines their position relative to other stars in the Harvard sequence.

An investigation of the physical nature of the variable star Z Ursae Majoris was begun and some 22 spectrograms of the star were obtained during the year.

A 10-foot grating spectrograph of Littrow form was completed and installed in the laboratory. This instrument has been used for the photometric determination of line intensities in laboratory spectra.

Many noted astronomers from all over the world visit the observatory from time to time. Including day visitors, approximately 39,000 persons visited the institution during the year.

SURVEYS BUREAU

All branches of survey work were actively prosecuted in the fiscal year 1929-30. The season was notable for the advance in the use of the aeroplane in all surveying fields, not only for the making of aerial photographs but for reconnaissance purposes and the transportation of ground survey parties.

Progress was made by the Geodetic Survey in the work of triangulation and levelling. In nearly all of the provinces work in the extension of triangulation nets and precise traverses was carried forward, and Laplace stations combining observations for latitude, longitude, and azimuth were established. The Levelling Division had field parties operating in the provinces of Quebec, Ontario, Manitoba, Saskatchewan, and British Columbia. The work of establishing precise level bench-marks throughout Canada was pushed forward energetically and nine publications were issued containing the record of the results throughout Canada. Geodetic research work was continued, and valuable data in the investigation of isostasy were secured.

The Topographical Survey continued its mapping program, including control surveys, aerial, ground, land-classification, and interprovincial boundary surveys, and surveys for determining magnetic declination. Eighteen parties

were in the field and new map sheets were issued covering over 100,000 square miles, of which over 70,000 square miles were covered by map sheets of the National Topographic Series. The facilities of the Physical Testing Laboratories are increasingly made use of both by Government departments and the public, in connection with the repairing and testing of scientific measuring and recording instruments.

The International Boundary Commission, Canadian Section, in conjunction with the United States Section was engaged in its work of maintaining the 5,500 miles of boundary between Canada and the United States in a state of effective demarcation. The vista in the Quebec-Maine section of the boundary was reopened, monuments were repaired, and the exact boundary marked on a number of international highways, bridges and tunnels. During the year fourteen boundary maps were printed and signed by the commissioners.

The Town Planning Division is the central educational agency for the promotion of town-planning practice throughout the Dominion, and contact is maintained with those centres where town-planning is in progress, or is being initiated, and the most up-to-date information is furnished relating to this work.

NATIONAL DEVELOPMENT BUREAU*

This bureau had a most active year along all its lines of endeavour.

Industrial Surveys.—As was the case last year, active co-operation was extended to boards of trade and other commercial and municipal organizations interested in industrial expansion. This work has now become a very important phase of the development studies carried on by the bureau. It comprises general and special investigations into the utilization of raw materials and products, and the initiation and direction of field surveys designed to indicate all latent possibilities for industrial expansion within specified areas. As regards the industrial surveys the policy formulated and adopted by the bureau provides for directing the formation, within the co-operating agencies concerned, of committees representative of the various commercial and social elements of the districts, for advising these in the matter of personnel, procedure, and other factors of importance which enter into the execution of the survey, and for such departmental assistance in the final analysis and correlation of the material as may be required.

During the year departmental co-operation was solicited by the boards of trade of Regina, Moose Jaw, Saskatoon, Prince Albert, Edmonton, Vancouver, New Westminster, Victoria, Calgary, Lethbridge, and Medicine Hat. In order that these as well as other interested bodies in Western Canada might be assured of the full benefit of departmental facilities in this work, a visit was made to the various districts by an officer of the bureau. This afforded the personal contacts essential to co-operation and enabled the leaders and members of the organizations concerned to receive first-hand information as to the scope and aims of industrial surveys. At each place complete explanations were given of the local organization involved, the nature and extent of the basic information required, the procedure that has been found to be most effective in collecting the material, and of the phases of the work in which departmental facilities could most effectively be utilized. As a result, industrial surveys were at once initiated in the Saskatoon, New Westminster, and Victoria areas in connection with which the Bureau undertook the work of

* Formerly designated Natural Resources Intelligence Service.

compilation, correlation, and analysis of the data collected in the field by the special committees, later combining these with related material available in Government departments at Ottawa. The preparation of a complete report was then placed in hand.

During the previous year a comprehensive industrial survey was made of the Border Cities district, comprising Windsor, Walkerville, Ford City, Riverside, Tecumseh, Sandwich, Ojibway, and La Salle. This was directed by the Bureau in co-operation with the Border Cities Chamber of Commerce and was followed by a report embodying a complete analysis of the established manufacturing industries in that area as well as an exposition of the possibilities of developing new industries. The Border Cities Chamber of Commerce has continued to use the facilities of the bureau in carrying out recommendations contained in that report. Visits were made also to London, Kitchener, Hamilton, and Niagara Falls, where the bureau has for some time been working in co-operation with the chambers of commerce or similar organizations in those cities.

By special request an officer of the bureau represented the department at Fort William Industrial Fair held in February. Advantage was taken of this visit by business men of the district to receive detailed explanations of departmental policy with respect to industrial surveys. As a result, tentative plans for the necessary surveys were at once formulated by the Board of Trade of that city as well as by the Chamber of Commerce of Port Arthur.

General Information Work.—The comprehensive index system maintained by the bureau provides a ready reference of up-to-date information on all phases of the development of Canada's natural resources. Record is kept of the continuous stream of development news reflecting the very latest operations throughout the country. The data, so assembled, are analysed and co-ordinated.

The many inquiries received during the year cover a wide range of resources and industrial subjects, and originate not only in this country but in a great number of cases are received from abroad from business men, investors, prospective settlers, editors, teachers, and others interested in the opportunities for development which Canada has to offer. In most instances comprehensive replies can be formulated at once from information on file, but many inquiries are of a nature which require special investigation and more protracted study. For instance, special investigations were made into definite phases of such subjects as the hydrogenation of fish oils, the manufacture of porcelain electric insulators, the utilization of waste parts of lobsters resulting from canning operations, opportunities for the manufacture of automatic forced draught machines for use in household furnaces, the possibilities of manufacturing blanc fixe in Canada, etc. In addition, upon request of boards of trade, chambers of commerce and other public service organizations in various sections of Canada, extensive reports were prepared covering the more or less local situations with respect to certain industries such as macaroni, leather, furniture, overalls, evaporated fruit, liquid chlorine, malt, brick, glue, hemp, soap, rubber tires, inside tile, coal pulverization, fish reduction, muskrat, silk, feeder cattle, and flour milling. Quite apart from the special co-operation which was extended to outside agencies, considerable progress was made in the routine study of development problems initiated by the Bureau, in connection with which a number of reports and maps were issued. *The Resources of New Brunswick*, one of a series of standard provincial reports, was revised, augmented by much new material, and printed. Also, in view of the remarkable expansion of industry along the St. Lawrence waterway and of the unprecedented interest in the

future of that area, the policy was adopted during the year of preparing separate reports of each contiguous district. Already much headway has been made in studies of the counties of southern Ontario and it is worthy of note that mimeographed reports of Dundas county and Hastings county recently issued have each been much in demand. Other mimeographed reports issued include *Opportunities for Settlers in Special Areas*, and *Peat and Its Industrial Applications*, the latter prepared in co-operation with the Department of Mines. The regular series of industrial maps was extended during the year to include tanneries, furniture factories, and wooden box, basket, and crate factories. The pulp and paper map was revised.

Because of the relatively large proportion of farm lands available in Canada, inquiries are very numerous concerning the possibilities for settlement in the various provinces. Land maps, cereal, elevator, physical and climatic, and vegetation and forest cover maps, and special reports, have been issued to facilitate handling the correspondence involved. The information conveyed by these media is necessary in dealing with ordinary requests, but considerable time and research is also devoted to the many inquiries which call for further study.

The domestication of fur-bearing animals has noticeably quickened interest in Canada's fur resources. This is reflected in the number of applications received for publications bearing on the subject of trapping practice as well as for information concerning the physical and economic aspects of fur-farming. The National Development Bureau has collected, classified and recorded a great mass of essential information on this important industry and has issued a number of reports which have proved to be very popular. During the year *The Muskrat: A Canadian Fur Resource* was printed, both in English and French. In addition there are now available in mimeographed form, monographs dealing with the domestication of practically all important fur-bearers.

Tourist Information.—Each year Canada becomes more widely known abroad, particularly among our neighbours to the south who in ever increasing numbers spend their vacations in this country. The actual economic influence exerted by this traffic is difficult to estimate, but is obviously of such importance as to warrant recognition as a major factor in Canadian development. The National Development Bureau put forth efforts to promote the traffic and to furnish information concerning our recreational resources. During the year inquiries included applications for particulars of automobile routes, condition of roads, camping trips, canoe trips, hiking tours, fishing and hunting trips, summer resorts, game laws, leasing of lakes, etc., and included also requests from tourists who had previously taken advantage of this service. Every endeavour is made to give the prospective tourist complete and authentic information. Tourist maps and booklets are revised periodically and supplemented as conditions warrant. During the year four booklets descriptive of the more interesting canoe trips in the Maritime Provinces, Quebec, Ontario, and in the western provinces were printed and several detailed descriptions of canoe trips were added to the lengthy list already available. Memoranda were prepared and issued in mimeographed form covering the better known hunting and fishing districts. The demand for the handbook, *Vacations in Canada*, was so great that a reprint was necessary.

Distribution of Publications.—During the year 829,379 maps, reports and booklets were distributed not only in Canada but also throughout Great Britain, the United States, and other countries. By this means co-operation was maintained with practically all organizations of importance in the different countries in touch with prospective tourists. These agencies assisted materially in circulating information about Canada either by direct distribution or by the advantageous display of reference maps, booklets, and folders.

Approximately 15,000 prospective delegates to international conventions held in Canada, of which there were seventy-five during the year, were supplied with road maps and booklets for the purpose of assisting them in planning their trips. Articles and reviews regarding Canada's attractions prepared by the Bureau were much in demand and appeared in newspapers and magazines in the United States, having a combined circulation of upwards of nine million copies. Publications distributed were utilized both by organizations and individuals, including a firm of ship brokers in Norway, interested in navigation problems of the Hudson Bay route; the geographer for the Institute of Politics which held a conference in Williamstown, Massachusetts, for the purpose of studying Canada-United States relations; a steamship company in Boston desiring material descriptive of Canadian tourist resorts for its offices in the tropics; an aircraft company planning a flight from Montreal to Vancouver; an organization in Ohio holding a "Canada" essay contest; a Chicago company interested in establishing a trans-Atlantic air service between that city and London via Hudson bay, Greenland, and Iceland; and the organizers of the American Ford Aircraft Reliability Tour.

Special Canadian News Service.—The *Canadian Newsletter* was issued weekly in English and French for distribution abroad. It comprises an average of over ten mimeographed pages of selected and condensed news describing the latest developments of resources and industries throughout Canada. It is distributed to Canadian ministers abroad, trade commissioners, newspapers and periodicals, technical journals, libraries, chambers of commerce, banks, investment houses, and industrial and commercial interests. The reissue by the High Commissioner's office in London of the items appearing in the newsletter greatly increases their circulation in the British Isles. The Canadian legations in Paris, Washington and Tokyo are important avenues for distribution. In connection with this news service every effort was made to accede to specific requests for more detailed articles and for suitable illustrations in the form of halftones, linecuts and photographs.

Geographic and Economic Mapping.—In the Chief Geographer's office considerable progress was made in the preparation and issue of the official maps of Canada. Seventeen sheets of Standard Geographic map series were revised and new editions of the following sheets were published: Belleville, Cape Breton, Cornwall, Gowganda, Halifax, Ottawa, Parry Sound, Quebec, Rivière du Loup, Yarmouth, and Sherbrooke, on a scale of 1 to 250,000; and Bonaventure, Gaspé, Gatineau, Roberval, Sudbury, and Victoria on a scale of 1 to 500,000. Much work was also done on the preparation of other sheets of this series. New revised editions of the Land District maps were issued, one for each of the nine land districts of the Prairie Provinces. The following maps were also revised and re-published: the small Railway map of Canada, 100 miles to the inch; Yukon Territory, 16 miles to the inch; Manitoba, Saskatchewan, and Alberta, each on a scale of 12½ miles to the inch; and sheet North L-18 of the *Carte du Monde au Millionième* was published. A number of large diagrammatic maps were specially prepared for lecture purposes. A base map of the province of Quebec was completed showing the Dominion electoral districts and giving also in detail all municipalities including towns, villages, parishes, and townships.

The importance of economic geography in relation to studies of national progress is recognized not only in educational spheres, but also in the fields of practical development. Again this year the Bureau carried out an extensive program of economic geography investigations as a result of which many of the regular series of economic maps were revised and a number of new maps initiated and issued or else placed in advanced stages of preparation. Included

are the Trade Routes map of the World; the Resources map of Canada, 230 miles to an inch; the Resources map of Canada, 100 miles to an inch; the Vegetation and Forest Cover map of Canada; a series of provincial resources maps; the United States-Canada Road maps series; map of the Prairie Provinces showing disposition of lands; and the Road and Recreational Resources map of New Brunswick. In addition, the facilities of the bureau were frequently taxed to the utmost in meeting the demands from the various branches of the federal and provincial Government services, as well as from geographical establishments, universities, industrial and financial interests, economists, authors, and publishers, for special maps portraying some phase of resources development.

Technical Plant.—The technical plant comprises photographic laboratories, blue printing, photostat, mimeographing, and related facilities. Established primarily to meet the varied needs of all branches of the Department of the Interior, other federal departments have increasingly made use of these services, with the result that all divisions of the plant experienced increased operations during the year. Photographs for reproduction purposes are much in demand by authors, publishers, syndicate newspaper services, chambers of commerce, trade commissioners, and other organizations at home and abroad, with the result that more than 9,500 photographs were distributed. The photographic library of the Bureau comprehensively covers all fields of development in Canada and is constantly kept up to date by the accession of new material. The lantern slide lecture service considerably increased its activities and new distributing centres were established. These lectures have proved to be of great educational value in depicting Canada's resources and attractions, and despite the fact that all standard sets have been duplicated many times these are practically in constant circulation. During the year 538 sets were distributed, the audiences totalling approximately 237,000 persons.

DISPOSITION of the Surveyed Areas in Manitoba, Saskatchewan and Alberta, January 1, 1930.

Items	Manitoba	Saskatchewan	Alberta	Total
	acres	acres	acres	acres
Area under homestead (including military homesteads).....	8,418,040	30,356,200	21,003,220	59,777,460
Area under pre-emptions, purchased homesteads, sales, half-breed scrip, bounty grants, special grants, swamp lands transferred to province of Manitoba, etc.....	5,846,438	6,727,654	3,542,471	16,116,563
Area granted to railway companies.....	3,553,969	15,197,944	13,032,697	31,784,610
Area granted to Hudson's Bay Company.....	1,274,147	3,352,958	2,404,152	7,031,257
Area of School Land Endowment (one-eighteenth of area surveyed in sections).....	1,639,200	3,944,650	3,769,400	9,353,250
Area sold subject to reclamation by drainage.....	41,066	41,656	39,606	122,328
Area sold under irrigation system.....		42,812	273,969	316,781
Area under timber berths (leased).....	1,363,770	559,974	1,016,672	2,940,416
Area under grazing leases.....	74,486	3,492,827	3,246,478	6,813,791
Area of forest reserves and parks.....	2,477,400	6,535,000	17,745,700	26,758,100
Area reserved for forestry; parks; dairy farms (Manitoba) and pulpwood purposes (inside surveyed tract).....	1,950,000	1,104,000	1,192,000	4,246,000
Area of road allowances.....	977,638	1,468,830	1,291,376	3,737,844
Area of parish and river lots.....	529,367	84,701	121,263	735,331
Area of Indian reserves.....	485,440	1,193,405	1,347,657	3,026,502
Area of Indian reserves surrendered.....	78,311	370,686	228,208	677,205
Area of water-covered lands (inside surveyed tract).....	4,260,280	1,899,593	2,296,850	8,456,723
Area undisposed of (surveyed).....	2,781,000	2,945,000	13,553,000	19,279,000
Totals.....	34,687,252	79,317,890	86,104,719	201,173,161

STATEMENT of Lands Sales by Railway Companies Having Government Land Grants and by the Hudson's Bay Company

Year	Hudson's Bay Company		Canadian Pacific Railway Company		Manitoba South-western Colonization Railway Company		Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company	
	acres	amount	acres	amount	acres	amount	acres	amount
		\$		\$		\$		\$
1893.....			93,184	295,288	14,164	57,559	1,603	
1894.....	7,526	48,225	43,155	131,628	6,312	280,003	640	
1895.....	4,341	23,209	55,453	176,950	5,623	22,330	2,391	
1896.....	9,299	52,410	66,624	220,360	21,254	88,568	286	
1897.....	10,784	53,277	135,681	431,095	63,800	634,644	2,524	
1898.....	62,000	310,000	242,135	757,792	106,473	363,982	22,534	
1899.....	56,875	274,625	261,832	814,857	58,019	199,558	61,030	178,517
1900.....	70,196	352,631	379,091	1,152,836	133,507	437,449	18,932	53,974
1901.....	82,308	399,804	339,985	1,046,665	59,749	214,953	22,266	74,810
1902.....	269,577	1,412,332	1,362,478	4,440,500	206,411	713,365	39,835	147,365
1903.....	330,046	1,939,804	2,260,722	8,472,250	250,372	699,210	843,900	1,476,900
1904.....	144,857	879,910	857,474	3,516,864	29,522	113,303		
1905.....	139,721	865,905	411,451	2,045,800	80,342	296,936		
1906.....	236,191	1,863,375	1,012,322	6,015,060	83,418	360,889		
1907*.....	69,158	742,221	851,083	4,817,682	3,051	22,645	1,353	16,789
1908.....	21,184	267,215	81,060	727,367	31,982	153,007	5,621	68,869
1909.....	25,449	288,836	29,331	383,390	10,396	84,845	27,662	380,371
1910.....	104,382	1,297,454	655,585	10,473,425	14,501	126,950	106,000	964,600
1911.....	267,038	3,747,768	715,095	10,372,661	20,313	284,859	113,533	1,237,204
1912.....	42,554	808,943	855,280	12,420,488	18,932	117,497	35,213	495,116
1913.....	53,581	1,128,806	447,158	6,348,352	2,768	48,639	15,395	255,399
1914.....	26,292	572,837	263,962	4,242,089	7,626	91,948	1,629	21,546
1915.....	16,400	306,550	151,262	2,496,872	489	5,508	1,292	19,118
1916.....	79,310	1,273,144	242,215	3,670,421	4,780	58,808	12,246	180,361
1917.....	254,941	4,234,244	405,764	6,612,040	12,470	165,245	21,533	331,596
1918.....	386,394	6,914,947	545,284	11,044,883	25,933	321,005	49,723	783,062
1919.....	285,561	4,978,950	602,555	10,580,669	5,289	67,214	33,838	527,670
1920.....	276,629	4,724,941	571,571	11,356,146	4,623	56,760	32,095	474,895
1921.....	178,301	3,037,369	275,636	5,898,994	1,518	20,058	11,432	160,472
1922.....	33,595	545,611	101,497	1,732,350	1,519	15,497	1,274	22,315
1923.....	24,976	366,257	83,485	1,248,968	373	5,107	1,122	17,000
1924.....	33,434	456,386	45,911	775,205	637	3,822	6,242	92,145
1925.....	84,758	1,117,618	91,295	1,602,524	1,701	13,890	1,925	28,571
1926.....	184,595	2,276,129	168,988	2,263,919	3,723	31,043	7,623	115,603
1927.....	282,670	3,414,539	249,497	2,979,958	3,695	27,043	9,985	142,968
1928.....	289,713	3,546,598	387,034	4,349,779	4,910	46,256	7,888	93,833
1929.....	289,903	3,349,574	447,594	4,902,593	8,266	61,134	5,393	73,201
1930.....	215,992	2,090,472	255,151	3,145,513	6,892	49,478	7,727	32,908
Totals.....	4,950,621	59,962,916	16,044,881	153,964,178	1,315,353	5,708,907	1,543,685	8,467,178

*Nine months to March 31.

DEPARTMENT OF THE INTERIOR

STATEMENT of Lands Sales by Railway Companies Having Government Land Grants and by the Hudson's Bay Company—*Concluded*

Year	Calgary and Edmon- ton Railway Company		Canadian Northern Railway Company		Great Northwest Central Railway Company		Total		Average per acre for all Rail- ways
	acres	amount	acres	amount	acres	amount	acres	amount	
		\$		\$		\$		\$	
1893....	11,260						120,211	352,847	2 93
1894....	11,035						68,668	207,856	3 02
1895....	46,815						114,713	222,489	1 94
1896....	10,553						108,016	361,338	3 34
1897....	9,436						222,225	719,016	3 23
1898....	15,481						448,623	1,431,774	3 18
1899....	24,738	53,335					462,494	1,520,792	3 28
1900....	46,653	128,256					648,379	2,125,146	3 27
1901....	116,719	352,037					621,027	2,088,269	3 36
1902....	323,494	1,033,396					2,201,795	7,746,958	3 56
1903....	231,800	909,600	183,736	631,503	128,435	522,490	4,229,011	14,651,757	3 46
1904....	129,007	563,507	64,469	313,575	41,858	177,081	1,267,187	5,564,240	4 39
1905....	109,191	512,898	231,707	1,221,469	17,593	103,564	990,005	5,046,572	5 09
1906....	85,784	480,063	204,966	1,014,351	20,003	137,503	1,642,684	9,871,241	6 01
1907*....	59,155	346,064	289,576	1,711,109	4,023	41,470	1,237,759	7,697,930	6 02
1908....	8,606	75,644	196,946	1,746,504	1,294	13,855	346,693	3,052,461	8 80
1909....	6,370	66,508			165	7,935	109,373	2,211,885	11 08
1910....	18,323	182,926	285,428	2,783,010	571	6,863	1,184,790	15,835,228	13 36
1911....	11,820	116,231	277,414	3,336,797	1,438	27,417	1,406,651	19,122,937	13 59
1912....	10,853	154,424	365,926	4,216,578	632	11,373	1,329,390	18,224,419	13 70
1913....	4,155	44,212	182,491	2,009,642	1,601	32,105	707,149	9,867,155	13 95
1914....	19,575	460,129	182,491	2,009,642			501,575	7,398,191	14 75
1915....	23,042	444,018			316	6,956	192,801	3,279,031	17 01
1916....	11,689	172,033			4,646	81,182	354,886	5,435,949	15 32
1917....	33,821	573,875	17,796	298,938	8,829	141,439	755,154	12,357,377	16 35
1918....	53,335	815,628	39,546	732,351	16,021	275,724	1,116,237	20,887,600	18 71
1919....	31,774	479,496	65,110	1,261,963	14,530	252,774	1,038,657	18,148,736	17 47
1920....	26,953	425,656	86,305	1,685,241	27,981	464,586	1,026,157	19,188,225	18 69
1921....	11,681	191,928	69,934	1,455,319	5,128	96,616	553,630	10,860,756	19 61
1922....	3,024	51,603	14,163	263,199	167	2,997	155,239	2,633,572	16 96
1923....	1,013	15,552	11,214	190,112	1,120	21,638	123,303	1,864,364	15 12
1924....	1,283	14,144	71,489	1,103,421	799	14,934	159,795	2,460,057	15 39
1925....	8,499	132,504	56,981	770,680	2,246	35,151	247,405	3,700,938	14 95
1926....	10,145	93,642	79,088	1,127,973	3,660	45,907	457,822	5,954,216	13 01
1927....	8,658	96,799	107,511	1,586,850	4,463	47,531	666,479	8,295,685	12 45
1928....	17,162	205,695	67,714	924,018	9,183	93,582	783,604	9,259,759	11 82
1929....	17,628	199,975	83,507	1,189,833	7,478	82,378	859,769	9,858,688	11 46
1930....	6,039	68,378	67,466	934,900	3,813	38,966	563,080	6,360,615	11 30
Totals..	1,576,929	9,460,156	3,302,974	34,518,978	327,993	2,783,756	29,062,436	274,866,069	9 46

*Nine months to March 31.

ACCOUNTS BRANCH

STATEMENT of Gross Cash Receipts from all Sources for the Fiscal Year 1929-30
Compared with the Receipts for the Previous Fiscal Year

Source of revenue	1929-30		1928-29		Increase		Decrease		Net decrease	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Dominion lands.....	4,249,866	81	4,152,279	31	97,587	50				
School lands.....	2,291,191	71	2,661,392	34			370,200	63		
Ordinance lands.....	30,308	90	24,858	19	5,450	71				
Seed grain and relief.....	352,065	36	423,801	75			71,736	39		
Registrar's fees.....	608	59	553	49			55	10		
Fines and forfeitures.....	4,019	44	3,539	93			479	51		
Casual revenue.....	14,125	54	21,665	53			7,539	99		
	6,942,186	35	7,288,090	54	103,572	82	449,477	01	345,904	19

STATEMENT of Cash Receipts on Account of Dominion Lands Revenue for the
Fiscal Year 1929-30 Compared with the Receipts for the Previous Fiscal
Year

Particulars	1929-30	1928-29	Increase	Decrease	Net increase
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Homestead fees.....	175,080 00	161,890 00	13,190 00		
General sales.....	72,676 15	85,905 39			
Pre-emption sales.....	337,348 55	657,211 44		13,229 24	
Purchased homestead sales.....	15,099 36	29,489 30		319,862 89	
Improvements.....	57,501 26	65,461 51		14,389 94	
Patent and Interchange fees.....	190 25	245 15		7,960 25	
Rentals of land.....	61,326 14	27,502 43	33,823 71	54 90	
Map sales, office fees, etc.....	36,021 51	30,053 15	5,968 36		
Suspense account.....	831 87	1,969 09		1,137 22	
Liquor permit fees.....	897 00	723 00	174 00		
Trader's licences.....	9,065 00	6,588 67	2,476 33		
Trapper's licences.....	17,905 95	16,127 00	1,778 95		
Bird licences.....	55 00	25 00	30 00		
Marriage licences.....	2 00	2 00			
Fur sales.....	82,271 50	28,338 87	53,932 63		
Fur export tax.....	793 70	5 00	788 70		
Trading post licences.....	44 00	65 00		21 00	
Billiard licences.....	125 00	175 00		50 00	
Miscellaneous.....	16,307 30	9,003 66	7,303 64		
Taxidermists licences, etc.....	215 15	74 00	141 15		
Timber dues.....	1,131,024 43	1,395,723 57		264,701 14	
Grazing rental.....	156,753 53	162,548 40		5,794 87	
Grazing fees.....	5,934 96	8,463 20		2,528 24	
Grazing improvements.....	3,788 62	16,105 15		12,316 53	
Hay permits.....	14,320 63	9,195 62	5,125 01		
House rental.....	2,939 15	3,098 00		158 85	
Irrigation fees.....	645 50	537 50	8 00		
Irrigation sales.....	2,999 84	13,055 16		10,055 32	
Sale of trees, etc.....	21,406 08	16,927 92	4,478 16		
Fishing permits.....	2,401 20	1,968 30	432 90		
Ice permits.....	88 00	98 00		10 00	
Camping permits.....	341 00	122 00	219 00		
Rent of water-power.....	69,364 00	67,224 26	2,139 74		
Coal lands.....	414,248 05	421,759 95		7,511 90	
Mining fees.....	192,553 86	238,279 25		45,725 39	
Dredging leases.....	527 20	2,210 00		1,682 80	
Petroleum leases.....	1,047,994 37	391,855 98	656,138 39		
Hydraulic leases.....	2,817 34	3,988 29		1,170 95	
Quarrying leases.....	12,928 81	11,430 96	1,497 85		
Potash and alkali leases.....	4,052 52	2,031 87	2,020 65		
Tar sand leases.....	750 63	117 21	633 42		
Sand, stone and gravel permits.....	285 00	803 00		518 00	
Quartz leases.....	15,752 62	12,968 85	2,783 77		
Export tax on gold.....	16,574 25	16,366 79	207 46		
Free certificates for export of gold.....	3 50	4 50		1 00	
Antelope park.....	384 00	384 00			
Buffalo park.....	26,380 39	28,220 16		1,839 77	
Elk Island park.....	9,393 50	1,334 60	8,058 90		
Fort Anne park.....	1 00	6 00		5 00	
Glacier park.....	197 23	180 14	17 09		
Jasper park.....	35,122 72	29,942 39	5,180 33		
Lake Florence.....	66 00	60 00	6 00		
Point Pelee park.....	266 75	599 37		332 62	
Banff park.....	148,611 38	150,959 60		2,348 22	
Waterton Lakes park.....	6,442 82	5,484 08	958 74		
Yoho park.....	3,612 00	3,144 17	467 83		
Prince Albert park.....	594 73	379 77	214 96		
Kootenay park.....	14,431 51	13,729 64	701 87		
Brereton Lakes park.....	10 00	10 00			
Historic sites.....	30 00	33 00		3 00	
Vidal's Point recreational area.....	171 00	72 00	99 00		
Refunds.....	4,249,866 81	4,152,279 31	810,996 54	713,409 04	
	110,762 32	81,939 94	28,822 38		
Net totals.....	4,139,104 49	4,070,339 37	782,174 16	713,409 04	68,765 12

DEPARTMENT OF THE INTERIOR

STATEMENT Showing Receipts on Account of Dominion Lands from July 1, 1872, to March 31, 1930.

Fiscal year	Homestead fees		Pre-emption fees		Improvements		Sales		Map sales, office and registration fees		Dominion Land Surveyors examination fees		Rents, survey fees, miscellaneous and suspense account		Purchased, homestead inspection, cancellation and sundry fees		Timber dues	
	\$	cts.	\$	cts.	\$	cts.	Cash		Scrip		\$	cts.	\$	cts.	\$	cts.	\$	cts.
							\$	cts.	\$	cts.								
1872-73.....	6,960 00				19,170 20													109 25
1873-74.....	7,310 00				19,834 75									125 50				2,710 55
1874-75.....	11,510 00				13,666 90													2,335 25
1875-76.....	4,680 00				3,478 94													387 00
1876-77.....	2,250 00				1,085 86													320 00
1877-78.....	14,540 00				2,794 86													1,620 00
1878-79.....	17,690 00				4,998 39													25,121 46
1879-80.....	41,255 00				45,708 97													58,753 14
1880-81.....	20,450 00			269 00	71,170 17													90,066 46
1881-82.....	54,155 00			1,758 00	1,940,328 27													147,983 10
1882-83.....	73,015 00			7,114 91	516,092 21													87,474 99
1883-84.....	41,580 00			2,596 11	424,863 36													64,820 31
1884-85.....	25,645 00			2,328 75	199,275 32													65,111 74
1885-86.....	26,110 00			1,101 50	76,140 41													94,964 55
1886-87.....	19,614 00			1,971 55	48,175 76													90,290 00
1887-88.....	23,691 00			1,918 35	52,238 36													84,642 95
1888-89.....	39,460 00			4,128 48	313,522 67													102,902 71
1889-90.....	35,920 00			3,250 54	54,896 85													106,461 35
1890-91.....	29,164 10			6,302 61	91,664 98													103,865 24
1891-92.....	46,994 00			6,472 31	111,651 01													81,290 51
1892-93.....	37,689 74			7,113 50	96,171 67													74,079 20
1893-94.....	36,462 26			3,497 76	53,254 71													61,923 47
1894-95.....	29,664 88			3,567 90	37,293 71													68,992 82
1895-96.....	18,278 00			3,163 15	46,373 98													8,327 50
1896-97.....	21,179 00			3,737 01	49,335 53													11,129 72
1897-98.....	34,780 00			5,649 63	80,178 64													15,859 88
1898-99.....	58,235 00			4,297 62	116,594 35													20,850 40
1899-1900.....	72,690 00			4,835 81	103,247 58													21,688 00
1900-01.....	79,910 00			5,213 22	40,360 93													12,874 00
1901-02.....	144,425 00			8,481 46	66,950 21													207,790 90

1902-03	320,409 65	11,829 08	• 155,537 49	158,452 66	5,911 96	365 00	125,128 66	595 00	470,916 93
1903-04	255,772 36	15,119 47	196,750 15	189,705 08	5,549 13	463 50	81,246 46	1,081 00	397,344 33
1904-05	304,806 25	21,571 25	154,128 04	19,644 59	4,879 13	906 50	144,854 31	1,271 00	266,951 46
1905-06	417,834 25	31,795 19	442,588 69	7,654 57	6,042 34	474 00	141,345 30	1,046 25	292,681 53
1906-07 (9 months)	215,449 55	39,763 63	503,202 44	11,349 89	5,449 06	420 00	60,450 99	685 00	379,476 32
1907-08	301,693 73	71,139 47	656,303 03	92,311 24	7,727 29	690 00	148,914 00	1,283 50	473,608 94
1908-09	389,039 00	70,928 86	951,442 28	20,136 27	7,296 55	1,040 00	75,596 96	9,579 50	269,837 52
1909-10	415,232 00	105,009 07	1,239,037 33	4,973 84	9,135 49	1,500 00	99,967 27	14,028 30	377,856 45
1910-11	445,135 00	143,227 13	1,193,756 04	1,437 84	8,730 01	1,310 00	42,111 92	20,142 85	387,054 96
1911-12	391,703 12	184,825 92	1,967,182 85	3,256 99	11,239 14	1,400 00	44,280 89	14,745 50	400,668 61
1912-13	337,055 00	168,904 42	1,650,491 87	6,157 27	14,483 91	1,040 00	17,866 65	11,380 00	463,738 75
1913-14	317,412 00	187,052 46	1,303,587 54	240 00	16,056 07	1,350 00	40,148 65	8,402 00	378,365 33
1914-15	238,295 00	114,982 17	696,672 23	80 00	14,290 23	970 60	33,234 14	4,776 10	310,934 29
1915-16	170,350 00	112,782 70	1,090,842 36	332 61	11,485 83	470 00	19,495 98	3,475 00	378,960 68
1916-17	112,110 20	112,711 33	2,707,203 99	131 47	13,976 95	560 00	21,212 91	2,910 00	429,403 09
1917-18	83,180 00	89,371 59	3,046,091 55	323 41	12,066 22	250 00	26,513 84	2,200 00	482,006 25
1918-19	42,190 00	49,225 97	2,192,860 81	80 00	11,039 54	100 00	77,291 91	360 00	408,728 28
1919-20	67,460 00	78,913 74	2,799,605 09	80 00	17,134 19	255 00	28,535 19	340 00	589,780 21
1920-21	53,880 00	70,492 66	1,721,171 61	.....	16,333 67	200 00	23,149 23	370 00	705,313 77
1921-22	73,540 00	56,084 83	761,849 89	.....	23,352 07	170 00	26,285 90	3,713 00	683,490 99
1922-23	53,460 00	36,847 94	414,278 96	900 00	21,414 16	180 00	20,848 43	6,187 40	825,465 05
1923-24	38,640 00	31,930 25	404,952 00	160 00	15,652 17	20 00	25,791 21	8,131 73	847,772 60
1924-25	36,590 00	37,738 73	410,221 58	611 80	16,115 57	10 00	28,637 37	17,072 05	981,399 60
1925-26	46,900 00	46,330 00	467,600 87	.....	19,473 96	.....	41,760 21	18,808 10	1,098,692 53
1926-27	57,700 00	53,409 35	544,873 59	.....	28,774 45	.....	35,150 25	22,640 90	1,190,974 61
1927-28	72,551 00	59,971 75	732,323 76	.....	34,467 59	.....	54,998 28	20,924 41	1,388,140 48
1928-29	161,890 00	81,566 66	785,661 29	.....	30,053 15	.....	69,912 05	23,955 82	1,395,725 57
1929-30	175,080 00	61,289 88	428,123 90	26 67	36,021 51	.....	163,675 96	29,077 90	1,131,024 43
Totals.	6,670,665 09	2,233,584 67	33,362,851 27	3,824,115 72	464,565 79	20,784 60	2,279,559 27	494,806 87	19,675,106 40

DEPARTMENT OF THE INTERIOR

STATEMENT Showing Receipts on Account of Dominion Lands from July 1, 1872, to March 31, 1930—Continued

Fiscal year	Grazing lands				Hay, coal, mining fees, stone quarries, export tax on gold, etc.				National parks		Colonization lands				Gross revenue		Refunds		Net revenue			
	Cash		Scrip		Cash		Scrip		Cash		Scrip		Cash		Scrip		Gross revenue		Refunds		Net revenue	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1872-73.....																		26,239 45				26,239 45
1873-74.....																		29,980 80				29,980 80
1874-75.....																		27,641 15				27,641 15
1875-76.....																		8,865 94				8,865 94
1876-77.....																		140,755 02				140,755 02
1877-78.....																		139,584 40				139,584 40
1878-79.....																		234,732 93				234,732 93
1879-80.....																		206,801 37	4,636 08			202,165 29
1880-81.....																		206,990 54	5,038 22			201,952 32
1881-82.....	2,245 00																	1,805,734 87	10,687 55			1,795,047 32
1882-83.....	22,844 43																	1,051,403 60	8,746 05			1,042,657 55
1883-84.....	11,370 60																	1,001,776 67	9,220 50			992,556 17
1884-85.....	17,089 75																	451,564 65	12,070 85			439,493 80
1885-86.....	29,562 51	3,131 08																457,973 95	63,389 12			394,584 83
1886-87.....	14,242 77	39,487 67																588,532 80	19,543 16			568,989 64
1887-88.....	5,922 47	23,023 28																569,936 68	6,277 66			563,709 02
1888-89.....	2,207 69	16,802 63																594,088 04	5,226 23			588,861 81
1889-90.....	1,305 57	9,021 63																464,018 76	8,209 74			455,809 02
1890-91.....	3,079 55	16,193 77																463,068 26	7,195 27			455,872 99
1891-92.....	3,726 80	17,222 60																459,760 58	15,291 39			444,469 19
1892-93.....	6,380 80	11,542 39																394,825 93	18,314 97			376,510 96
1893-94.....	5,740 79	7,687 86																250,069 12	4,544 01			245,525 11
1894-95.....	5,353 72	8,628 00																202,983 10	4,365 99			198,617 11
1895-96.....	7,071 86	6,255 90																227,694 93	8,368 79			219,326 14
1896-97.....	4,715 01	2,500 00																198,676 81	6,833 78			191,843 03
1897-98.....	4,728 58																	1,009,741 63	4,678 55			1,005,063 08
1898-99.....	5,245 88																	1,584,328 32	32,296 39			1,552,031 93
1899-1900.....	8,382 86																	1,503,743 05	23,062 28			1,480,680 77
1900-01.....	4,726 28	14,671 99																1,874,159 09	18,368 85			1,855,790 24
1901-02.....	7,292 46	8,409 27																1,432,679 25	27,165 55			1,405,513 70
1902-03.....	13,911 73	15,041 33																1,890,886 83	21,519 84			1,869,366 99
1903-04.....	19,790 27	13,921 23																1,681,824 70	36,721 75			1,645,102 95

1904-05	36,145 32	5,237 36	364,927 59	*14,059 55	25,786 90	1,313,595 45
1905-06	51,583 89	80 00	297,302 44	18,883 83	33,418 36	1,675,896 92
1906-07 (9 months)	43,711 91	400 00	214,257 10	*15,887 42	35,117 48	1,455,385 83
1907-08	43,211 78	4,048 01	266,415 31	27,232 87	115,080 04	1,979,499 13
1908-09	53,312 79	3,257 84	253,339 17	31,321 20	102,463 78	2,175,214 31
1909-10	67,807 01	5,081 47	459,870 29	43,697 61	121,431 15	2,901,014 98
1910-11	60,702 80	2,356 00	774,569 27	69,054 59	198,689 47	3,107,383 94
1911-12	69,519 41	1,520 00	729,126 56	56,497 74	197,631 35	3,780,405 38
1912-13	79,412 76		779,695 53	37,448 72	246,105 46	3,409,096 94
1913-14	84,926 15	320 00	865,499 12	48,800 33	277,309 33	3,036,510 32
1914-15	101,710 58	400 00	1,594,905 42	37,895 97	317,764 75	2,860,101 98
1915-16	118,955 02	160 00	476,408 82	37,493 53	143,942 57	2,299,697 35
1916-17	128,341 50		600,934 13	45,851 45	134,243 14	4,055,995 02
1917-18	125,300 69	240 00	630,427 95	52,160 52	113,680 44	4,444,129 64
1918-19	148,179 55		630,975 74	55,006 72	116,249 03	3,540,250 91
1919-20	183,661 96		896,413 40	76,742 07	130,750 93	4,622,671 82
1920-21	183,756 97		1,234,558 49	76,850 09	119,079 58	2,799,450 01
1921-22	144,344 67		1,071,395 56	74,302 68	83,151 71	2,348,615 43
1922-23	153,697 11		823,183 50	75,304 59	71,983 13	2,281,863 90
1923-24	141,871 05		723,762 59	115,163 42	102,880 70	2,803,513 22
1924-25	149,070 38		639,749 23	176,650 46	76,684 27	3,327,273 22
1925-26	166,387 97		793,357 73	180,886 12	91,280 73	3,689,074 59
1926-27	162,096 89		1,084,694 72	238,239 19	74,333 97	4,070,339 37
1927-28	161,044 56		963,64 14	275,342 59	81,939 94	4,139,131 16
1928-29	171,011 60		1,197,890 25	234,612 92	110,762 32	
1929-30	162,688 49		1,816,954 56	245,930 18	4,249,893 48	
Totals	3,199,390 19	241,235 06	26,062,706 16	2,418,870 86	102,841,327 01	99,261,763 10

*Including scrip.

DEPARTMENT OF THE INTERIOR

STATEMENT Showing the Yearly Gross Cash Revenue from all Sources from
April 1, 1910, to March 31, 1930

Fiscal Year	Dominion Lands	School Lands	Seed Grain	Ordinance Lands	Fines and Licenses
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910-11.....	3,302,279 57	1,614,733 93	153,351 12	6,009 32	4,052 22
1911-12.....	3,973,259 74	1,594,533 90	119,634 13	11,566 41	10,510 48
1912-13.....	3,647,457 61	1,621,508 11	171,322 82	60,007 80	7,150 35
1913-14.....	3,313,259 65	1,215,822 37	176,736 89	5,805 98	7,888 50
1914-15.....	3,177,386 73	943,717 00	68,263 51	4,416 63	5,828 00
1915-16.....	2,443,479 92	934,965 32	2,525,528 50	5,997 98	3,075 21
1916-17.....	4,189,905 55	1,699,370 02	3,652,729 02	5,553 21	2,184 72
1917-18.....	4,557,438 61	2,836,216 40	2,613,708 62	7,929 72	3,686 00
1918-19.....	3,615,958 52	5,087,875 82	1,378,275 71	4,819 22	35 00
1919-20.....	4,738,840 85	3,900,091 75	1,155,354 64	9,840 33	70 00
	36,959,266 75	21,448,834 70	12,014,925 22	122,546 82	44,480 48
1920-21.....	4,086,076 49	4,480,270 67	773,200 67	8,887 88	1,139 75
1921-22.....	2,918,529 59	2,335,726 83	372,320 85	8,446 48	2,912 73
1922-23.....	2,430,867 14	1,538,449 90	254,802 25	6,132 79	3,075 46
1923-24.....	2,353,687 02	1,511,518 09	274,227 20	57,505 92	2,467 55
1924-25.....	2,493,254 97	1,468,627 43	298,684 22	16,474 10	3,398 86
1925-26.....	2,880,197 49	2,052,415 12	309,646 02	13,015 18	2,613 87
1926-27.....	3,418,553 92	1,567,547 79	320,807 92	30,797 02	4,592 45
1927-28.....	3,762,928 56	2,085,300 72	313,193 85	14,221 02	3,622 98
1928-29.....	4,152,279 32	2,661,392 32	423,801 72	24,858 19	3,539 93
1929-30.....	4,249,866 82	2,291,191 72	352,035 32	30,308 90	4,019 44
	32,746,241 33	21,992,440 72	3,682,780 13	210,677 58	31,383 03
Increase.....		543,605 92		88,130 77	
Decrease.....	4,213,025 42		8,332,145 08		13,097 45

STATEMENT Showing the Yearly Gross Cash Revenue from all Sources from
April 1, 1910, to March 31, 1930—Concluded

Fiscal year	Registration fees	Casual revenue	Chinese immigration revenue	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910-11.....	1,378 19	11,336 02		5,093,140 45
1911-12.....	1,066 00	32,824 65	971,339 00	6,714,734 47
1912-13.....	1,241 22	22,873 52	3,549,242 00	9,081,423 54
1913-14.....	966 50	27,884 47	2,644,593 00	7,392,957 36
1914-15.....	909 82	11,738 10	588,124 00	4,800,443 88
1915-16.....	908 12	28,002 62	19,389 00	5,961,346 75
1916-17.....	796 82	15,618 20	140,487 00	9,706,644 75
1917-18.....	562 22	9,074 12	336,757 00	10,365,372 83
1918-19.....	789 22	12,381 71		10,100,135 29
1919-20.....	430 78	22,837 87		9,827,466 22
	9,109 08	194,571 44	8,249,931 00	79,043,665 54
1920-21.....	448 32	811,970 42		10,161,994 22
1921-22.....	524 62	20,128 62		5,658,619 79
1922-23.....	454 00	20,000 18		4,253,841 78
1923-24.....	603 30	28,317 00		4,228,326 14
1924-25.....	334 12	20,079 52		4,300,853 25
1925-26.....	920 12	12,294 77		5,271,132 53
1926-27.....	453 19	42,139 80		5,374,892 28
1927-28.....	350 79	14,378 32		6,193,996 26
1928-29.....	553 49	21,665 52		7,288,090 54
1929-30.....	608 59	14,125 52		6,942,186 35
	5,250 52	1,005,159 82		59,673,933 14
Increase.....		810,588 32		
Decrease.....	3,858 54		8,249,931 00	19,369,732 40

Appended hereto are individual reports of the Commissioner of Dominion Lands; the Supervisory Mining Engineer; the Director of Forestry; the Commissioner, National Parks of Canada; the Director of Water Power and Reclamation; the Director of the North West Territories and Yukon Branch; and the Director General of Surveys. The Geodetic Survey, the Topographical Survey, the Water Power and Reclamation Service, the Forest Service, the National Parks of Canada Branch, and the North West Territories and Yukon Branch publish separate annual reports which review the work of the year in greater detail.

Your obedient servant,

W. W. CORY,
Deputy Minister.

November 1, 1930.

DOMINION LANDS

REPORT OF THE COMMISSIONER, J. W. MARTIN

An interesting feature of the transactions for the fiscal year, so far as Dominion lands were concerned, was the large number of homestead entries recorded, showing an advance over 1928-29 when there was also an exceptional increase. The entries granted totalled 17,504 as compared with 16,157 for the previous year, an increase of 1,347. Included in these entries were 4,952 second homesteads granted to settlers who had completed the duties in connection with their first homesteads by January 1, 1925, an increase of 261 as compared with the previous fiscal year. In addition to the homestead entries there were taken up 720 soldier grants, aggregating an approximate area of 115,200 acres.

Applications for patent were as follows:—

Number examined.....	5,845
New applications.....	3,188
Applications accepted and notifications issued.....	2,356
Certificates of recommendation sent out.....	39

Since the inauguration of the Seed Grain and Relief Adjustment Boards of the provinces of Manitoba, Saskatchewan, and Alberta, under the legislation authorizing the adjustment or apportionment of seed grain, fodder, and relief indebtedness, there have been submitted to the various boards for investigation and recommendation some four thousand cases. Of this number about 1,900 have been finally dealt with by Order in Council, and a large proportion of these were disposed of during the last fiscal year. The open accounts covering Dominion advances and joint advances with the provinces number approximately 22,000, many of which may ultimately have to be disposed of through adjustment.

The report of the Timber and Grazing Lands Division indicates an increase of over sixty million feet board measure of lumber manufactured, and five million feet board measure marketed. There was an increase of over eighty-six thousand head of livestock grazed on Dominion Government leaseholds which now cover an area of nearly seven and a quarter million acres.

A general auction sale of school lands was held in the province of Saskatchewan, which was successful both as to the area disposed of and the price per acre realized. In the provinces of Alberta and Manitoba small auction sales were held comprising chiefly lands which had previously been held under sale.

The areas disposed of, with values realized, were as follows:—

Province	Area in acres	Amount realized		Average price per acre	
		\$	cts.	\$	cts.
Saskatchewan.....	371,309 79	5,426,479	95		14 62
Alberta.....	28,373 27	342,504	35		12 07
Manitoba.....	4,198 15	49,738	29		11 85

The revenue derived from the disposal of mining rights on Dominion lands increased considerably during the past fiscal year. This increase was due to the interest manifested in leases issued for petroleum and natural gas purposes, principally in the province of Alberta. During the year the Department commenced the collection of royalty on oil produced from wells drilled on Dominion lands. The royalty provisions came into force on January 1, 1930, and during the months of January, February, and March over \$33,000 was collected on this account. The number of producing wells has increased, and the total oil production from Dominion lands in the fiscal year was nearly one million barrels. The records of the Mining Lands Division show that there was an increase in production of coal, petroleum, natural gas, and gold from Dominion lands in the Prairie Provinces, and of silver and lead in Yukon Territory.

Following up the report of the Royal Commission which conducted an inquiry into the financial adjustments involved in the proposed transfer to Manitoba of its natural resources, an agreement between the Dominion and the province of Manitoba was concluded on December 14, 1929, under which the interest of the Crown in all Crown lands, mines, minerals, and royalties, and all sums due or payable for such lands, mines, minerals or royalties, were declared to belong to the province and the administration thereof was declared to be transferred to the province from and after the coming into force of the said agreement. Similar agreements have also been entered into with the provinces of Saskatchewan, Alberta, and British Columbia.

It is expected that the governments of the western provinces will take over the administration of the natural resources within their respective boundaries during the coming fiscal year.

REPORT OF ASSISTANT COMMISSIONER OF DOMINION LANDS, EDMONTON

Reports of Agencies

Agency	Homestead entries granted	Land sales	Applications for patent received	Land entries cancelled	Permits issued	
		Ordinary and school lands			Timber	Hay
<i>Manitoba—</i>						
Dauphin.....	432	14	177	193	411	467
*The Pas.....						
Winnipeg.....	295	81	142	605		
<i>Saskatchewan—</i>						
Moose Jaw.....	1,216	153	751	533	41	438
Prince Albert.....	4,873	167	845	1,992	1,026	881
<i>Alberta—</i>						
Calgary.....	409	68	115	295	242	104
Cold Lake.....						
Edmonton.....	4,600	210	521	2,018	2,289	713
Grande Prairie.....	2,293	127	128	854	618	129
Lethbridge.....	222	71	74	98	11	6
Peace River.....	3,058	50	151	1,617	787	250
<i>British Columbia—</i>						
Kamloops.....	37	15	32	59	399	
Revelstoke.....	26	3	18	22	257	
New Westminster.....	36	36	29	35	195	

NOTE.—Owing to the fact that adjustments are being made from day to day (including restoration of cancelled entries and sales in some cases, and in other cases disallowance of entries reported by the various agents), these figures can only be taken as indicating approximately the business transacted at each agency.

*The Pas office is that of a Mining Recorder, who is also Sub-Agent. The returns from this office for the fiscal year were as follows: Mining locations 1,104; assessments, 36; rentals, 247.

†The Cold Lake office is that of a Mining Recorder. The returns from this office for the fiscal year were as follows:—Mining locations, 456; assessments, 6; maps, 261; searches, 687; rentals, 3.

DEPARTMENT OF THE INTERIOR

HOMESTEAD INSPECTORS, PRINCIPAL WORK PERFORMED BY

Headquarters	Name	Land inspections made	Applica- tions for patent	Miles travelled	
				Wagon	Rail
<i>Manitoba—</i>					
Dauphin.....	W. S. Gordon.....	190	.....	7,787	5,617
".....	W. J. Mayberry.....	554	64	10,267	1,943
".....	Geo. L. Speers.....	386	109	4,083	9,165
Winnipeg.....	J. F. Drew.....	366	47	6,703	10,677
".....	W. H. Gray.....	441	33	6,828	9,371
".....	A. B. Jacobs.....	60	.....	8,452	6,287
".....	E. A. Koons.....	190	.....	9,317	7,561
".....	*A. W. Love.....	73	.....	602	2,220
".....	*Gust Mager.....	34	.....	918	1,114
".....	F. L. Morton.....	429	57	5,773	9,713
".....	J. H. Thompson.....	172	.....	6,007	6,713
".....	W. H. Wardrop.....	318	.....	7,760	3,829
".....	W. A. Willets.....	205	.....	2,937	6,043
".....	Thos. P. Williams.....	320	.....	3,982	9,026½
<i>Saskatchewan—</i>					
Moose Jaw.....	C. E. Barr.....	1,619	24	12,204	34
".....	F. J. Bigg.....	1,046	18	10,522	1,087
".....	W. A. Brown.....	901	25	11,451	582
".....	J. C. deBalinhard.....	734	56	15,850	3,589
".....	J. Furnis.....	495	4	8,967	138
".....	*E. L. J. Jaycock.....	951	15	12,864	841
".....	F. M. Lambert.....	843	43	9,752	663
".....	G. H. Lydiard.....	1,569	10	16,031	1,412
".....	T. M. Morgan.....	601	5	7,661	1,022
".....	T. A. Underwood.....	1,736	29	18,268	1,297
Prince Albert.....	*F. Cummings.....	463	3	5,396	2,426
".....	*H. J. Dorrance.....	400	75	4,515	3,962
".....	H. A. Gleeson.....	489	47	12,444	4,002
".....	A. E. Mosses.....	951	43	17,632	2,633
".....	Fred McKenzie.....	650	50	8,337	3,516
".....	S. Taylor.....	577	21	11,435	1,541
".....	F. H. F. Webb-Bowen.....	682	69	5,871	3,054
".....	W. W. Whelan.....	701	20	11,961	1,770
<i>Alberta—</i>					
Calgary.....	*R. A. Kembry.....	642	7	11,643	2,155
".....	D. H. Minchin.....	334	11	8,422	1,447
".....	Jas. Nurcombe.....	1,753	32	15,027	4,009½
".....	H. B. Stickney.....	862	8	13,419	1,132
".....	Wm. Tempamy.....	772	12	18,661	474
Edmonton.....	W. E. Bristow.....	164	.....	7,953	3,250
".....	I. S. Doze.....	328	26	4,188	3,957
".....	J. P. Duggan.....	387	40	3,531	3,580
".....	D. A. McKay.....	370	3	3,801	6,465
".....	*J. E. McMullen.....	51	.....	792	905
".....	A. McMillan.....	288	2	16,592	3,502
".....	J. D. McMillan.....	92	5	1,371	945
".....	J. F. McLeod.....	377	.....	11,130	2,609
".....	H. S. McCowan.....	382	2	13,537	272
".....	F. W. Neilson.....	456	22	4,701	2,682
".....	A. Sullivan.....	567	35	10,220	2,723
".....	R. S. Wyllie.....	321	20	12,982	622
Grande Prairie.....	T. M. Newton.....	544	30	13,601	.....
".....	L. T. Smith.....	705	35	15,567	350
Lethbridge.....	H. L. Bowyer.....	440	.....	11,546	1,180
".....	D. E. Wilcox.....	1,180	19	13,793	1,146
Peace River.....	S. Grimwood.....	538	24	11,271	2,107
".....	D. S. Hayden.....	435	8	10,014	1,732
<i>British Columbia—</i>					
Kamloops.....	J. M. Benzie.....	413	23	6,392	1,438
".....	P. C. Campbell.....	377	.....	8,082	1,195
Revelstoke.....	†Henry Cook.....	.....	.....	.....	.....
".....	W. E. Smith.....	120	5	5,823	4,735

*Homestead Inspector employed for portion of year only.

†Henry Cook absent all year on sick leave.

REVENUES COLLECTED AT DOMINION LAND AGENCIES CLASSIFIED UNDER THE VARIOUS HEADINGS

Agency	Agent	Land Patents Division	Timber and Grazing Division	Reclama- tion Service
		\$ cts.	\$ cts.	\$ cts.
<i>Manitoba</i> —				
Winnipeg.....	L. P. O. Noel.....	7,724 84	885 24	194 22
Dauphin.....	E. Widmeyer.....	6,443 17	14,898 04	
<i>Saskatchewan</i> —				
Moose Jaw.....	J. A. Reid.....	293,621 88	58,639 30	956 59
Prince Albert.....	L. C. Paterson.....	80,506 26	130,158 27	56 70
<i>Alberta</i> —				
Lethbridge.....	E. F. Layton.....	48,941 66	40,034 47	50 15
Calgary.....	E. H. Crockett.....	26,571 66	63,430 74	54 49
Edmonton.....	A. Norquay.....	67,734 33	252,434 17	696 63
Grande Prairie.....	H. W. Clarke.....	28,589 12	6,084 93	
Peace River.....	R. Cruickshank.....	38,278 25	6,823 41	
<i>British Columbia</i> —				
Kamloops.....	H. J. Parker.....	2,955 86	85,269 44	
Revelstoke.....	T. J. Wadman.....	941 81	30,722 47	
New Westminster.....	E. Walmsley.....	9,206 83	298,737 18	

REVENUE COLLECTED AT DOMINION LAND AGENCIES (Concluded)

Agency	Agent	Mining Lands Division	School Lands Division	Miscel- laneous	Total
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Manitoba</i> —					
Winnipeg.....	L. P. O. Noel.....	48,927 51	3,207 38	1,482 34	62,421 53
Dauphin.....	E. Widmeyer.....	7,896 71	2,481 93	39 45	31,759 30
<i>Saskatchewan</i> —					
Moose Jaw.....	J. A. Reid.....	17,337 55	120,394 69	157,115 62	648,065 63
Prince Albert.....	L. C. Paterson.....	26,386 88	34,956 28	8,519 84	280,584 23
<i>Alberta</i> —					
Lethbridge.....	E. F. Layton.....	323,925 85	46,459 03	9,676 39	469,087 55
Calgary.....	E. H. Crockett.....	636,902 11	102,397 94	2,365 16	831,722 10
Edmonton.....	A. Norquay.....	254,437 30	47,185 49	1,737 32	624,225 24
Grande Prairie.....	H. W. Clarke.....	270 90	25,940 58	1,062 53	61,948 06
Peace River.....	R. Cruickshank.....	5,088 45	1,316 09	258 95	51,765 15
<i>British Columbia</i> —					
Kamloops.....	H. J. Parker.....	3,080 13			91,305 43
Revelstoke.....	T. J. Wadman.....	57 50			31,721 78
New Westminster.....	E. Walmsley.....	8,276 11			316,220 12

Land Patents

LETTERS PATENT

During the fiscal year ended March 31, 1930, there were 5,997 letters patent issued, covering a total area of 832,665 acres, divided according to provinces as follows:—

Province	Patents	Acres
Manitoba.....	604	81,898
Saskatchewan.....	2,621	376,784
Alberta.....	2,338	349,240
British Columbia.....	425	24,558
Yukon Territory.....	2	180
Northwest Territories.....	7	5
Totals.....	5,997	832,665

The various kinds of grants are summarized below and are later dealt with in detail in statements A to G, inclusive:—

Grants	Patents	Acres
Homesteads.....	2,164	330,611
Sales.....	957	99,808
Pre-emptions.....	432	68,718
Purchased homesteads.....	42	5,476
Railways.....	457	21,686
Special grants.....	1,409	199,638
Northwest half-breed grants.....	29	3,635
Licences of occupation.....	3	2
Soldier grants.....	328	50,287
Hudson's Bay Company grants.....	175	52,802
Manitoba Act grants.....	1	2
Totals.....	5,997	832,665

There was a decrease of eighteen letters patent and a decrease in the area patented of 112,539 acres, as compared with the previous year.

Since May, 1873, there have been issued 491,454 letters patent, aggregating an area of 107,126,520 acres. Those issued since July, 1883, are of record in the Land Patents and Records Division, and number about 476,357.

LANDS DISPOSED OF

Seventeen thousand five hundred and four (17,504) homestead entries (including 4,952 second homesteads) were granted, aggregating an approximate area of 2,800,640 acres, made up by provinces as follows: Manitoba, 727; Saskatchewan, 6,089; Alberta, 9,795; British Columbia, 893; total, 17,504.

There was an increase of 1,347 in the number of homestead entries granted as compared with the previous year.

By land agencies the 17,504 homestead entries are made up as follows:—

Manitoba.—Dauphin, 432; Winnipeg, 295; total, 727.

Saskatchewan.—Moose Jaw, 1,216; Prince Albert, 4,873; total, 6,089.

Alberta.—Calgary, 410; Edmonton, 4,603; Grande Prairie, 1,801; Lethbridge, 222; Peace River, 2,759; total, 9,795.

British Columbia.—Grande Prairie, 492; Kamloops, 37; New Westminster, 36; Peace River, 302; Revelstoke, 26; total, 893.

The 17,504 homestead entries represented 50,406 persons as compiled from information obtained from each entrant. Of these entries 3,750 were made by residents of the several provinces of the Dominion; 2,066 by persons who had previously obtained homestead entries which had been cancelled by default or at the request of the entrant, in order, in most cases, that he might enter for other lands; 1,049 were made by persons from the British Isles; 1,294 by persons from the United States; 450 by Austrians; 208 by Hungarians; 460 by Russians; 43 by Finlanders; 364 by Norwegians; 38 by Swiss; 34 by Frenchmen; 24 by Belgians; 240 by Swedes; 495 by Germans; 101 by Roumanians; 1,384 by Poles; 179 by Danes; 373 by citizens of various other countries and 4,952 were second homesteads.

There were 720 soldier grant entries made during the year, aggregating approximately 115,200 acres made up as follows:—

	Number of entries	Acres
Manitoba.....	19	3,040
Saskatchewan.....	224	35,840
Alberta.....	422	67,520
British Columbia (Railway Belt and Peace River Block).....	55	8,800
Totals.....	720	115,200

By land agencies the soldier grants were as follows:—

Manitoba.—Dauphin, 7; Winnipeg, 12; total, 19.

Saskatchewan.—Moose Jaw, 52; Prince Albert, 172; total, 224.

Alberta.—Calgary, 24; Edmonton, 164; Grande Prairie, 94; Lethbridge, 3; Peace River, 137; total, 422.

British Columbia.—(Railway Belt and Peace River Block) Grande Prairie, 30; Kamloops, 2; New Westminster, 7; Peace River, 12; Revelstoke, 4; total, 55.

There were 4,952 second homestead entries made during the year, aggregating approximately 792,320 acres, made up as follows:—

	Number of entries	Acres
Manitoba.....	182	29,120
Saskatchewan.....	2,061	329,760
Alberta.....	2,470	395,200
British Columbia (Railway Belt and Peace River Block).....	239	38,240
Totals.....	4,952	792,320

By land agencies the 4,952 second homestead entries are made up as follows:—

Manitoba.—Dauphin, 107; Winnipeg, 75; total, 182.

Saskatchewan.—Moose Jaw, 626; Prince Albert, 1,435; total, 2,061.

Alberta.—Lethbridge, 121; Calgary, 202; Edmonton, 1,090; Grande Prairie, 471; Peace River, 586; total, 2,470.

British Columbia.—Grande Prairie, 138; Peace River, 73; Revelstoke, 7; Kamloops, 15; New Westminster, 6; total, 239.

CANCELLED ENTRIES

There were cancelled 8,042 entries as follows:—

	Manitoba	Saskatchewan	Alberta	British Columbia
Homesteads.....	552	2,261	3,823	202
Soldier grant entries.....	153	199	365	29
Pre-emptions.....		177	177	
Purchased homesteads.....		19	10	
Sales.....	7	24	39	5
Totals.....	712	2,680	4,414	236

Value of improvements collected on cancelled homesteads: 762 refunds, \$41,447.81.

NEWLY SURVEYED LANDS THROWN OPEN TO HOMESTEAD ENTRY

Newly surveyed lands comprised in 37 townships were made available for homestead entry as follows:—

Manitoba.—Dauphin, in 4 townships.

Saskatchewan.—Moose Jaw, in 1 township; Prince Albert, in 2 townships; total, 3 townships.

Alberta.—Peace River, in 6 townships; Edmonton, in 1 township; Grande Prairie, in 21 townships; total, 28 townships.

British Columbia.—Grande Prairie, in 2 townships.

DEPARTMENT OF THE INTERIOR

STATEMENT A—Letters patent issued covering Dominion Lands in Manitoba, Saskatchewan, Alberta, Northwest Territories, British Columbia and Yukon Territory

No.	Nature of Grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	British Columbia homesteads.....	73	6,254	121	11,400
2	British Columbia sales.....	13	757	13	167
3	Drainage sales.....	7	389	12	609
4	Forestry sales.....	4	34		
5	Homesteads.....	2,065	320,258	2,058	317,974
6	Homesteads, Peace River Block.....	25	3,939	27	4,225
7	Hudson's Bay Co.....	175	52,802	112	29,865
8	Licences of occupation.....	3	2	3	9
9	Manitoba Act grant.....	1	2		
10	Military bounty grants.....			2	320
11	Military homesteads.....			2	621
12	Mining lands sales.....			2	97
13	Northwest half-breed grants.....	29	3,635	28	5,346
14	Ordinance land sale.....	1	4		
15	Parish sales.....	1	114	1	
16	Pre-emption sales.....	432	68,718	710	112,364
17	Purchased homesteads.....	42	5,476	58	8,444
18	Quit claim, drainage sales.....			1	127
19	Quit claim, sales.....			6	253
20	Quit claim, special grants.....	72		53	242
	Railways—			1	3
21	Alberta and Great Waterways.....				
22	Calgary and Edmonton Railway (minerals only).....	101			
23	Canadian National Railway.....	12	139		
24	Canadian Northern Railway.....	35	11,312	206	95,330
25	Canadian Northern Alberta Railway.....	2	24		
26	Canadian Northern Pacific Railway.....	102	1,926		
27	Canadian Northern Western Railway.....	7	156		
28	Canadian Pacific Railway.....	178	3,720	45	709
29	Canadian Pacific Railway, subsidy grant.....	1	136		
30	Canadian Pacific Railway road-bed and station grounds.....			3	158
31	Central Canada Railway.....	3	14		
32	Grand Trunk Pacific Railway.....	4	58		
33	Kettle Valley Railway.....	1	5		
34	Lacombe and North Western Railway.....			1	6
35	Manitoba Northern Railway.....	2	34		
36	Manitoba and South Eastern Railway.....	8	4,156		
37	Manitoba South-Western Colonization Railway.....	1	6		
38	Sales.....	278	18,708	196	12,104
39	Sales, Peace River Block.....	4	174	2	143
40	School lands sales.....	648	79,608	543	74,151
41	Soldier grants.....	317	48,580	350	53,558
42	Soldier grants, Peace River Block.....	11	1,707	16	2,513
43	Special grants.....	1,290	194,987	1,417	211,894
44	Special grants (minerals only, 160 acres).....			1	
45	Special grants, Peace River Block.....	29	4,651	16	2,561
46	Special grants (timber only, 3,709 acres).....	18		3	
47	Yukon Territory homesteads.....	1	160		
48	Yukon Territory sales.....	1	20	5	11
49	Yukon Territory special grants.....			1	
	Totals.....	5,997	832,665	6,015	945,204

STATEMENT B—Letters patent issued covering Dominion Lands in Manitoba

No.	Nature of Grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	Homesteads.....	203	30,269	273	40,744
2	Hudson's Bay Co.....	2	648		
3	Manitoba Act grant.....	1	2		
4	Mining lands sales.....				
5	Parish sales.....	1	114	2	97
6	Quit claim, sales.....			1	
7	Quit claim, special grants.....	6		3	168
	Railways—			40	160
8	Canadian National Railway.....	1	10		
9	Canadian Northern Railway.....	1	3		
10	Canadian Pacific Railway.....	28	110	1	1
11	Canadian Pacific Railway road-bed and station grounds.....				
12	Manitoba Northern Railway.....	2	34	1	2
13	Manitoba South Western Colonization Railway.....	1	6		
14	Sales.....	36	1,283	42	1,615
15	School lands sales.....	21	2,545	26	3,496
16	Soldier grants.....	45	7,022	53	8,265
17	Special grants.....	256	39,852	117	18,007
	Totals.....	604	81,898	559	72,555

STATEMENT C—Letters patent issued covering Dominion Lands in Saskatchewan

No.	Nature of Grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	Drainage sales.....	1	23	6	239
2	Forestry sales.....	1	2		
3	Homesteads.....	1,158	180,471	1,096	169,274
4	Hudson's Bay Co.....	6	1,798	10	2,715
5	Licences of occupation.....	3	2	2	8
6	Military bounty grants.....			2	320
7	Military homesteads.....			1	302
8	Northwest half-breed grants.....	28	3,595	28	5,346
9	Pre-emption sales.....	366	58,168	585	92,508
10	Purchased homesteads.....	27	3,945	46	7,220
11	Quit claim, sales.....			1	48
12	Quit claim, special grants.....	49			
	Railways—				
13	Canadian National Railway.....	1	6		
14	Canadian Northern Railway.....	24	6,879	206	95,330
15	Canadian Pacific Railway.....	17	287		
16	Canadian Pacific Railway, subsidy grant.....	1	136		
17	Manitoba and South Eastern Railway.....	8	4,156		
18	Sales.....	104	5,072	62	3,283
19	School lands sales.....	345	41,467	278	38,382
20	Soldier grants.....	169	26,575	174	27,464
21	Special grants.....	313	44,202	662	95,174
	Totals.....	2,621	376,784	3,159	537,613

DEPARTMENT OF THE INTERIOR

STATEMENT D—Letters patent issued covering Dominion Lands in Alberta

No.	Nature of Grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	Drainage sales.....	6	366	6	370
2	Forestry sales.....	2	30		
3	Homesteads.....	704	109,518	689	107,956
4	Hudson's Bay Co.....	167	50,356	102	27,150
5	Licences of occupation.....			1	1
6	Military homesteads.....			1	319
7	Northwest half-breed grants.....	1	40		
8	Pre-emption sales.....	66	10,550	125	19,856
9	Purchased homesteads.....	9	1,429	7	1,127
10	Quit claim, drainage sales.....			1	127
11	Quit claim, sales.....			2	37
12	Quit claim, special grants.....	17		13	82
13	Railways:				
14	Alberta and Great Waterways Railway.....			1	3
15	Calgary and Edmonton Railway (minerals only).....	101			
16	Canadian National Railway.....	9	114		
17	Canadian Northern Railway.....	10	4,430		
18	Canadian Northern Alberta Railway.....	2	24		
19	Canadian Northern Western Railway.....	7	156		
20	Canadian Pacific Railway.....	15	287		
21	Central Canada Railway.....	3	14		
22	Grand Trunk Pacific Railway.....	4	58		
23	Lacombe and North Western Railway.....			1	6
24	Sales.....	131	12,348	89	7,204
25	School lands sales.....	282	35,596	239	32,273
26	Soldier grants.....	94	14,297	104	16,091
27	Special grants.....	708	109,627	614	96,099
	Special grants (minerals only, 160 acres).....			1	
	Totals.....	2,338	349,240	1,996	308,701

STATEMENT E—Letters patent issued covering Dominion Lands in British Columbia

No.	Nature of Grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	British Columbia homesteads.....	73	6,254	121	11,400
2	British Columbia sales.....	13	757	13	167
3	Forestry sales.....	1	2		
4	Homesteads, Peace River Block.....	25	3,939	27	4,225
5	Ordinance land sale.....	1	4		
6	Purchased homesteads.....	6	102	5	97
7	Railways—				
8	Canadian National Railway.....	1	9		
9	Canadian Northern Pacific Railway.....	102	1,926		
10	Canadian Pacific Railway.....	118	3,036	44	708
11	Canadian Pacific Railway road-bed and station grounds.....			2	156
12	Kettle Valley Railway.....	1	5		
13	Sales, Peace River Block.....	4	174	2	143
14	Soldier grants.....	9	686	19	1,738
15	Soldier grants, Peace River Block.....	11	1,707	16	2,513
16	Special grants.....	13	1,306	24	2,614
17	Special grants, Peace River Block.....	29	4,651	16	2,561
	Special grants (timber only, 3,709 acres).....	18		3	
	Totals.....	425	24,558	292	26,322

STATEMENTS F AND G—Letters patent issued covering Dominion Lands

F—IN YUKON TERRITORY

No.	Nature of Grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	Yukon Territory homesteads.....	1	160		
2	Yukon Territory sales.....	1	20	5	11
3	Yukon Territory special grants.....			1	
	Totals.....	2	180	6	11

G—IN THE NORTHWEST TERRITORIES

No.	Nature of grant	From April 1, 1929 to March 31, 1930		From April 1, 1928 to March 31, 1929	
		Patents	Acres	Patents	Acres
1	Sales.....	7	5	3	2

STATEMENT H—Number of Homestead Entries made during the Fiscal Year 1929-30, ending March 31, 1930, the Nationality of the Homesteaders and the Provinces in which the entries were made

Country of origin	Provinces				Total	Country of origin	Provinces				Total
	Manitoba	Saskatchewan	Alberta	British Columbia			Manitoba	Saskatchewan	Alberta	British Columbia	
Canada—						Brought forward.....	455	3,228	5,865	618	10,177
Yukon Territory.....			3		3	Russia.....	17	170	269	4	460
Ontario.....	27	313	391	86	817	Bermuda.....		1			1
Quebec.....	9	132	316	11	468	Argentina Republic.....		1	2		3
Nova Scotia.....	2	33	48	9	92	Bulgaria.....		1			1
New Brunswick.....	2	14	26	2	44	China.....			2		2
Prince Edward Island.....	2	24	18	3	47	Japan.....			1		1
Manitoba.....	150	238	248	34	670	Arabia.....		1			1
Saskatchewan.....	9	578	253	42	882	Australia.....		1			1
Alberta.....	1	47	576	39	663	New Zealand.....					
British Columbia.....		8	35	21	64	India.....	1	1	1	1	4
Persons who had previous entry.....	78	525	1,368	95	2,066	West Indies.....			4		4
Newfoundland.....		4	8		12	Greece.....			1		1
United States.....	21	422	768	83	1,294	Poland.....	48	334	994	8	1,384
England.....	18	224	375	62	679	Finland.....	1	4	34	4	43
Scotland.....	6	78	114	26	224	Free City of Danzig.....		1			1
Ireland.....	1	41	89	15	146	Czecho-Slovakia.....	10	25	80	11	126
France.....	2	9	23		34	Hungary.....	11	120	75	2	208
Belgium.....	2	9	13		24	Jugo-Slavia.....	1	7	31	2	41
Switzerland.....		10	22	6	38	Wales.....		13	38	3	54
Italy.....		3	14	1	18	Esthonia.....		1	3		4
Roumania.....	2	29	67	3	101	Assyria.....	1	2			3
Syria.....	1		1		2	Lithuania.....		7	14		21
Germany.....	10	227	253	5	495	Central America.....			1		1
Austria.....	99	142	202	7	450	Mauritius Islands.....			1		1
Holland.....	1	8	41	2	52	Mexico.....			1		1
Denmark.....	1	31	137	10	179	Luxembourg.....			1		1
Iceland.....	3	5			8	Straits Settlement.....			1		1
Sweden.....	6	73	144	17	240	Africa.....			2	1	3
Norway.....	2	111	212	39	364	Second Homesteads.....	182	2,061	2,470	239	4,952
Carried forward.....	455	3,228	5,865	618	10,177	Total.....	727	6,089	9,795	893	17,504

Number of souls represented by above entries, 50,406.

DEPARTMENT OF THE INTERIOR

STATEMENT I—Number of Homestead Entries made in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia during the Fiscal Year by persons coming from the United States

State	Provinces				Total	State	Provinces				Total
	Manitoba	Saskatchewan	Alberta	British Columbia			Manitoba	Saskatchewan	Alberta	British Columbia	
						Brought forward.....	12	221	382	45	660
Alabama.....			1		1	Minnesota.....	2	99	131	16	248
Alaska.....			1		1	Mississippi.....		2	3	1	6
Arizona.....		1	1		2	Missouri.....	1	4	19	3	27
Arkansas.....		1	2	1	4	Montana.....	1	11	23	1	36
California.....		3	2	1	6	Nebraska.....		6	30	2	38
Carolina, North.....			9		2	Nevada.....			1		1
Colorado.....		4	2	1	14	New Hampshire.....		7	2		9
Connecticut.....		1	1		2	New Jersey.....		8	15		23
Dakota, North.....	4	103	102	15	24	New York.....		3	17	2	23
Dakota, South.....	1	21	55	3	80	Ohio.....	1	3	16	3	27
Florida.....			1		1	Oklahoma.....	1	7	18		21
Georgia.....		1	1		2	Oregon.....		3	8	2	17
Idaho.....	1	1	14	1	17	Pennsylvania.....			6		6
Illinois.....	1	19	31	2	53	Rhode Island.....			5		5
Indiana.....	1	5	13	2	21	Tennessee.....		3	7	1	11
Iowa.....	2	18	47	8	75	Texas.....		3	1	1	5
Kansas.....	1	8	30	1	40	Vermont.....		1	2		3
Kentucky.....		2	3	1	6	Virginia.....			1		1
Louisiana.....			1		1	Virginia, West.....		1	5	32	40
Maine.....	1	3	9	1	14	Washington.....	1	29	41	4	75
Massachusetts.....		9	17	2	28	Wisconsin.....	1		6		7
Michigan.....		21	39	6	66	Wyoming.....	1				
Carried forward.....	12	221	382	45	660	Total.....	21	422	768	83	1,294

STATEMENT J—Number of Homestead Entries made during the Fiscal Year, as compared with the previous Fiscal Year

Agency	Manitoba		Saskatchewan		Alberta		British Columbia		Total
	1929-30	1928-29	1929-30	1928-29	1929-30	1928-29	1929-30	1928-29	
Calgary.....					410	545			
Dauphin.....	432	338							
Edmonton.....					4,603	3,646			
Grande Prairie.....					1,801	1,916	492	352	
Kamloops.....							37	23	
Lethbridge.....					222	297			
Moose Jaw.....			1,216	1,611			36	55	
New Westminster.....					2,759	2,529	302	323	
Peace River.....									
Prince Albert.....			4,873	4,197			26	20	
Revelstoke.....									
Winnipeg.....	295	305							17,504
Fiscal year 1929-1930.....									16,157
Fiscal year 1928-1929.....									1,347
Net increase.....									
Total.....	727	643	6,089	5,808	9,795	8,933	893	773	

STATEMENT K—Number of Soldier Entries made during the Fiscal Year, as compared with the previous Fiscal Year

Agency	Manitoba		Saskatchewan		Alberta		British Columbia		Total
	1929-30	1928-29	1929-30	1928-29	1929-30	1928-29	1929-30	1928-29	
Calgary.....					24	34			
Dauphin.....	7	6							
Edmonton.....					164	143			
Grande Prairie.....					94	95	30	24	
Kamloops.....							2	3	
Lethbridge.....					3	4			
Moose Jaw.....			52	93					
New Westminster.....							7	2	
Peace River.....							12	21	
Prince Albert.....			172	156	137	137			
Revelstoke.....							4	2	
Winnipeg.....	12	22							
Fiscal year 1929-1930.....									720
Fiscal year 1928-1929.....									742
Net decrease.....									22
Totals.....	19	28	224	249	422	413	55	52	

School Lands

During the fiscal year ended March 31, 1930, school lands were disposed of by public auction and private sale in the provinces of Manitoba, Saskatchewan, and Alberta as follows:—

MANITOBA

How disposed of	Area in acres	Sale price	Average per acre
		\$ cts.	\$ cts.
By public auction.....	4,198·15	49,738 29	11 85
By private sale in accordance with provisions of Dominion Lands Act.....	32·82	664 90	20 26
Totals.....	4,230·97	50,403 19	11 91

SASKATCHEWAN

By public auction.....	371,809·79	5,426,479 95 ¹	14 62
By private sale in accordance with provisions of Dominion Lands Act.....	700·94	8,873 75	12 66
Total.....	372,010·73	5,435,353 70	14 61

ALBERTA

By public auction.....	28,373·27	342,504 35	12 07
By private sale in accordance with provisions of Dominion Lands Act.....	303·66	3,488 08	11 49
Total.....	28,676·93	345,992 43	12 06

¹Includes the sale price of 103 town lots—\$5,330.

DEPARTMENT OF THE INTERIOR

After making the necessary deductions for cancelled sales and adjustments in regard to alterations in areas, the approximate net areas and values of school lands and town lots disposed of to March 31, 1930, were as follows:—

Province	Area in acres	Sale price	Average per acre	Sale price of town lots
		\$ cts.	\$ cts.	\$ cts.
Manitoba.....	635,480.74	6,101,913 80	9 60	5,240 00
Saskatchewan.....	2,119,796.68	33,198,820 73	15 66	17,976 00
Alberta.....	1,234,647 53	17,554,966 53	14 22	39,765 00

The number of permits and leases issued, the number of leases in good standing, and the combined revenue derived therefrom for the provinces of Manitoba, Saskatchewan, and Alberta for the fiscal year were as follows:—

	Permits issued	Leases issued	Leases in good standing	Revenue derived
				\$ cts.
Grazing.....	5,329			60,362 12
Cultivation.....	365			19,357 82
Hay.....	1,410			3,832 34
Timber.....	385			26,300 30
Coal.....		13	76	20,377 49
Petroleum and natural gas.....		168	1,064	101,864 17
Special.....		2	38	847 50

Registration Fees.—During the fiscal year 705 assignments of sales and leases were registered, comprising lands in the provinces of Manitoba, Saskatchewan, and Alberta. The fees amounted to \$2,591.45.

REVENUE AND EXPENDITURE STATEMENTS

The total net revenue collected for the fiscal year was as follows:—

Manitoba.....	\$ 35,321 31
Saskatchewan.....	1,413,230 16
Alberta.....	812,214 31
	<u>\$ 2,260,765 78</u>

The revenues collected for the fiscal year (less principal moneys and less expenditure) and paid to the provinces of Manitoba, Saskatchewan, and Alberta, were as follows:—

Province	Revenue other than principal moneys	Expenditure	Amount paid to province
	\$ cts.	\$ cts.	\$ cts.
Manitoba.....	18,517 52	18,446 37	87 18
Saskatchewan.....	358,298 15	54,762 40	303,535 75
Alberta.....	449,070 48	37,086 69	411,983 77

The balance standing to the credit of the School Lands Fund for each province as on March 31, 1930, and the interest paid on the investment for the fiscal year 1929-30 were as follows:—

Province	Total amount at credit of fund	Amount invested in debenture stock	Interest paid on investments
	\$ cts.	\$ cts.	\$ cts.
Manitoba.....	5,905,584 82	5,905,000 00	294,525 00
Saskatchewan.....	17,724,632 89	17,724,000 00	853,225 00
Alberta.....	9,500,822 68	9,500,000 00	459,175 00

Statements herewith lettered A, B, and C respectively show the revenue collected from each of the provinces of Manitoba, Saskatchewan, and Alberta for the fiscal year, duly classified.

Statements herewith lettered D, E, and F respectively show the balance standing to the credit of the School Lands Fund for each province as on March 31, 1930, after deducting amounts invested in debenture stock as provided for by Order in Council.

STATEMENT A—Manitoba School Lands—Revenue collected for fiscal year

Source	Gross totals		Refunds	Net totals
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Sales—Principal.....		16,895 56	4 59	16,890 97
Interest.....		7,465 83		7,465 83
Cultivation.....	1,471 00			
Less office fees transferred to Dominion Lands....	27 00	1,444 00	82 50	1,361 50
Grazing.....	2,684 26			
Less office fees transferred to Dominion Lands....	296 00			
Timber.....	5,543 68	2,388 26	55 43	2,332 83
Less office fees transferred to Dominion Lands....	120 00			
Hay.....	2,364 99	5,423 68	804 34	4,619 34
Less office fees transferred to Dominion Lands....	545 00			
Petroleum and natural gas.....		1,819 99	71 75	1,748 24
Registration fees.....		531 00	306 00	225 00
Miscellaneous.....		19 00		19 00
		863 60	205 00	658 60
Totals.....		36,850 92	1,529 61	35,321 31

DEPARTMENT OF THE INTERIOR

STATEMENT B—Saskatchewan School Lands—Revenue collected for fiscal year

Source	Gross totals		Refunds	Net totals
	\$	cts.	\$	cts.
Sales—Principal.....	1,081,992	89		
Less adjustments.....	1,901	77		
			1,080,091	12
Interest.....	284,888	37	1,635	31
Add adjustments.....	1,655	94		
			1,377	78
				285,166
Cultivation.....	16,568	96		
Less office fees transferred to Dominion Lands.....	290	00		
			16,278	96
			742	75
				15,536
Grazing.....	40,397	15		
Less office fees transferred to Dominion Lands.....	3,338	00		
			37,059	15
			144	35
				36,914
Timber.....	2,909	66		
Less office fees transferred to Dominion Lands.....	164	00		
			2,745	66
			332	17
				2,413
Hay.....	2,012	00		
Less office fees transferred to Dominion Lands.....	557	00		
			1,455	00
				67
				1,388
Coal.....			941	50
Petroleum and natural gas.....			2,269	23
Registration fees.....			811	80
				20
				775
				1,494
Miscellaneous.....	5,988	04		
Less office fees transferred to Dominion Lands.....	1	00		
Less adjustments.....	6	25		
			5,980	79
			15,853	00
				-9,872
Totals.....			1,434,177	52
			20,947	36
				1,413,230
				16

STATEMENT C—Alberta School Lands—Revenue collected for fiscal year

Source	Gross totals		Refunds	Net totals
	\$	cts.	\$	cts.
Sales—Principal.....	377,855	16		
Less adjustments.....	720	01		
			377,135	15
Interest.....	271,131	94	848	75
Add adjustments.....	979	09		
			272,111	03
			98	29
				272,012
Cultivation.....	2,711	53		
Less office fees transferred to Dominion Lands.....	48	00		
			2,663	53
			203	42
				2,460
Grazing.....	23,051	31		
Less office fees transferred to Dominion Lands.....	1,695	00		
			21,356	31
			241	82
				21,114
Timber.....	19,799	57		
Less office fees transferred to Dominion Lands.....	101	00		
			19,698	57
			431	10
				19,267
Hay.....	1,040	10		
Less office fees transferred to Dominion Lands.....	308	00		
			732	10
			19,465	99
			36	00
				696
Coal.....	102,857	36		
Petroleum and natural gas.....	2	91		
Add adjustments.....			2,715	33
				100,144
Registration fees.....	1,884	55		
Less adjustments.....	9	91		
			1,874	64
			93	99
				1,780
Miscellaneous.....	2,266	68		
Less office fees transferred to Dominion Lands.....	1	00		
			2,265	68
			3,250	26
				-984
Totals.....			820,163	27
			7,948	96
				812,214
				31

STATEMENT D—Revenue and Expenditure—Manitoba School Lands, 1929-30

Particulars	Dr.		Cr.	
	\$	cts.	\$	cts.
By balance April 1, 1929.....				709 88
“ sales.....			24,356	80
“ cultivation permits.....			1,361	50
“ timber dues, hay dues, grazing rent, coal, petroleum and miscellaneous.....			9,584	01
“ registration fees.....			19	00
“ interest on fund.....			87	18
To cost of management at Ottawa.....	13,123	79		
“ outside salaries, printing and stationery, advertising and general expenses.....	5,322	58		
“ interest paid to Manitoba Government.....	87	18		
“ investments in debenture stock.....	17,000	00		
“ balance March 31, 1930.....	584	82		
Totals.....	36,118	37	36,118	37

STATEMENT E—Revenue and Expenditure—Saskatchewan School Lands, 1929-30

Particulars	Dr.		Cr.	
	\$	cts.	\$	cts.
By balance on April 1, 1929.....				1,177 08
“ sales.....			1,363,622	34
“ cultivation permits.....			15,536	21
“ timber dues, hay dues, grazing rent, coal, petroleum and miscellaneous.....			33,279	81
“ registration fees.....			791	80
“ interest on fund.....			23,523	80
To cost of management at Ottawa.....	39,371	31		
“ outside salaries, printing and stationery, advertising and general expenses.....	15,391	09		
“ revenue and interest paid to Saskatchewan Government.....	303,535	75		
“ investments in debenture stock.....	1,079,000	00		
“ balance March 31, 1930.....	632	89		
Totals.....	1,437,931	04	1,437,931	04

STATEMENT F—Revenue and Expenditure—Alberta School Lands, 1929-30

Particulars	Dr.		Cr.	
	\$	cts.	\$	cts.
By balance on April 1, 1929.....				536 28
“ sales.....			648,299	14
“ cultivation permits.....			2,460	11
“ timber dues, hay dues, grazing rent, coal, petroleum and miscellaneous.....			159,674	41
“ registration fees.....			1,780	65
“ interest on fund.....			13,142	57
To cost of management at Ottawa.....	26,247	50		
“ outside salaries, printing and stationery, advertising and general expenses.....	10,839	19		
“ revenue and interest paid to Alberta Government.....	411,983	79		
“ investments in debenture stock.....	376,000	00		
“ balance on March 31, 1930.....	822	68		
Totals.....	825,893	16	825,893	16

Mining Lands

In all probability the fiscal year ending March 31, 1930, will be the last that the annual report of the Mining Lands Division will cover the activities for twelve months with respect to the disposal of mining rights in the three Prairie Provinces and in connection with certain minerals in the Railway Belt and Peace River Block, province of British Columbia, due to the enactment of legislation providing for the transfer of the administration of these resources to the respective provinces.

The greatest activity during the past fiscal year, so far as the disposal of mining rights is concerned, was in connection with petroleum and natural gas leases, particularly in the province of Alberta, but the mining of coal still holds first place as regards production of minerals. The preliminary figures show that there were 7,728,453 tons of coal mined in the West, outside of British Columbia, during the calendar year 1929.

The Central Manitoba Mines Limited continued operations of their mine and mill in central Manitoba. During the year 1930 part of the metallurgical works of the Hudson's Bay Mining and Smelting Company, operating the Flin Flon mine, will be in operation.

The aeroplane was again used extensively for prospecting and exploring purposes by several mining companies engaged in the search for new prospects in the Northwest Territories, and extensive development work was carried on by one company on a group of mineral claims situated south of Great Slave lake. There are also indications that some of the iron deposits on the islands in Hudson Bay may be thoroughly tested in the near future.

In Yukon Territory there have been produced by means of placer mining operations 43,433.80 ounces of gold, and from ores the production was 2,510,334.10 ounces of silver and 8,678,120 pounds of lead. The total value of the mineral production in Yukon Territory for the fiscal year is estimated at \$3,154,316.06. For this purpose the placer gold was valued at \$20 per ounce. The one concentrating mill in operation in Yukon Territory, which is operated by the Treadwell Yukon Company, Limited, and which is situated in the Mayo district, was in continuous operation during the year.

All mineral rights alienated under the provisions of the existing mining regulations have been disposed of by lease or permit only for limited periods of time, and such rights are not now sold. The sources of revenue of this branch are confined to fees, rentals and royalties, and from these several sources there was collected during the fiscal year the sum of \$1,638,597.74, an increase of \$585,016.06 over the previous year.

Under the provisions of the Petroleum and Natural Gas Regulations, expenditures incurred in actual development on areas acquired under lease may be accepted in satisfaction of rentals, which should otherwise be paid in cash, and under this provision, rentals due to the Crown, amounting to \$532,142.27 were satisfied by such expenditures, and so reduced the revenue of the branch to that extent. The total revenue in cash, together with expenditures accepted in lieu of rental, amounted to \$2,170,740.01 during the year.

The provision of the regulations for the disposal at auction of petroleum and natural gas rights in areas comprised in cancelled leases, has resulted up to date in the payment to the Crown of the sum of \$199,031.62 on account of bonus, of which amount the sum of \$151,731.97 was collected during the last fiscal year.

That portion of the revenue of Yukon Territory derived from mining rights only, including the export tax on gold shipped from Yukon Territory, amounted to \$67,723.30.

Petroleum and Natural Gas.—There are now in force 16,139 petroleum and natural gas leases affecting Dominion lands, and embracing a total area of 2,169,102.33 acres; distributed as follows: In Manitoba, 49 leases, comprising 14,057 acres; in Saskatchewan, 109 leases, comprising 14,832 acres; in Alberta, 15,950 leases, comprising 2,129,490 acres; in British Columbia, 26 leases, comprising 6,670 acres; and in the Northwest Territories, 5 leases, comprising 4,053.33 acres.

Petroleum prospecting permits to the number of 164 have been issued, comprising 74,748 acres, and of these 125 permits were issued during the fiscal year under review.

The collection of royalty was commenced on January 1, 1930, and since that date to the end of the fiscal year the sum of \$33,854.64 was paid on this account. The number of petroleum and natural gas leases issued during the last fiscal year was 9,139, comprising a total area of 1,098,577 acres, and the total revenue from this source for the year amounted to \$1,047,994.37.

There have been issued, since the regulations governing the leasing of petroleum and natural gas rights were established, 50,357 leases. The total revenue which has been derived from this source since the beginning, has amounted to \$7,039,843.99, and the total expenditure which has been accepted in lieu of rental during the same period was \$4,129,850.63. On lands leased from the Crown 540 wells have been drilled to depth for the discovery of oil and gas. In the province of Alberta there have been produced during the year 903,337 barrels of oil from wells situated on Dominion lands. Many of the localities of Alberta, including the cities of Edmonton, Calgary, Lethbridge, and Medicine Hat, are supplied with natural gas produced from areas, most of which have been leased under the provisions of the regulations established by this Department.

Coal.—Prior to the year 1906 coal mining rights were disposed of by sale, at a price varying from seven to ten dollars an acre, and subject to the payment of a royalty of ten cents per ton on the quantity of coal mined, which royalty, however, has since been reduced to seven cents per ton. Such rights have since been disposed of by terminable lease, at a rental of one dollar an acre per annum and a royalty at the rate of five cents per ton. The area of coal mining rights disposed of up to 1906 by sale was approximately 245,070 acres, and the total revenue which was collected from the sale of such rights was \$1,565,833.88. The total number of coal mining leases in force at the close of the fiscal year was 693, comprising a total area of 241,909 acres, distributed as follows: Alberta, 609 leases, comprising 233,884 acres; Saskatchewan, 79 leases, comprising 4,145 acres; British Columbia, 3 leases, comprising 3,740 acres; Yukon Territory, 1 lease, comprising 40 acres; and Northwest Territories, 1 lease, comprising 100 acres. The total number of coal mining leases issued during the year was 101, comprising 27,161 acres, and the total revenue collected during the year for rental of such rights was \$158,901.54.

The following statement shows the amounts which have been collected on account of royalty on coal mined from lands in the western provinces, the Northwest Territories and Yukon Territory, respectively, during each of the last twenty three years:—

Year	Alberta		Saskatchewan		British Columbia		Yukon Territory		Northwest Territories	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1907-1908.....	7,621	67		4 30	Nil		1,543	38	Nil	
1908-1909.....	5,322	39		358 11	"		371	73	"	
1909-1910.....	153,559	98	1,672	50	3 00		136	38	"	
1910-1911.....	218,932	88	2,184	74	3 50		125	00	"	
1911-1912.....	104,894	55	2,034	74	2 78		390	00	"	
1912-1913.....	142,997	79	3,145	72	6 95		1,069	11	"	
1913-1914.....	147,198	75	2,123	43	19 35		Nil		"	
1914-1915.....	104,489	77	1,880	06	4 90		"		"	
1915-1916.....	67,190	17	2,601	52	3 50		"		5 10	
1916-1917.....	149,447	82	2,228	08	8 92		"		Nil	
1917-1918.....	144,634	75	4,046	55	Nil		"		6 00	
1918-1919.....	175,687	66	3,193	05	"		"		Nil	
1919-1920.....	181,641	80	2,573	32	"		"		"	
1920-1921.....	190,545	80	2,703	41	"		"		"	
1921-1922.....	185,436	88	3,309	86	"		"		"	
1922-1923.....	171,723	83	3,035	18	"		"		"	
1923-1924.....	210,389	53	1,689	45	"		"		"	
1924-1925.....	148,979	10	2,421	11	7 50		"		1 50	
1925-1926.....	188,277	94	3,024	94	Nil		"		2 00	
1926-1927.....	218,150	10	4,726	93	"		"		3 50	
1927-1928.....	231,757	96	7,589	18	"		"		2 20	
1928-1929.....	254,616	27	5,322	75	12 75		"		2 80	
1929-1930.....	248,083	71	7,259	65	Nil		"		3 15	

The total revenue derived from fees, rentals and royalties collected in connection with coal mining rights during the year amounted to \$414,248.05.

Quartz and Placer Mining.—Placer mining claims are held under yearly lease, subject to an annual expenditure in development work. Quartz mining claims are similarly held until development has sufficiently progressed and the claim has been surveyed under proper instructions, when a lease is issued for a continuous period of twenty-one years, subject to royalty only.

During the year, entries were granted for 4,759 quartz mining claims, of which number 3,721 were for claims in the western provinces, for the most part in Manitoba. Entries were also granted for 110 placer mining claims staked and applied for during the year, and 1,894 such claims, previously acquired, were renewed for another year.

Final leases have been granted for 1,247 mineral claims, comprising a total area of 61,354.62 acres, of which number 218 leases were issued during the fiscal year, comprising an area of 8,660.33 acres.

In the Mayo district of Yukon Territory, where the Treadwell Yukon Company, Limited, operates a concentrating mill, this company shipped 6,909.49 tons of ore and concentrates. Only ore containing values in the neighbourhood of \$200 per ton is shipped. The report of the Gold Commissioner indicates that there was an increase in the production from ores mined in the Mayo district during the year, and it is expected that over ten thousand tons of ore will be shipped during the year 1930.

Quarrying.—Under the Quarrying Regulations, which provide for the disposal of Dominion lands containing limestone, granite, slate, marble, gypsum, marl, gravel, sand, clay, and other like substances, 344 leases are now in force, comprising an area of 10,990.74 acres. The revenue collected from this source during the year amounted to \$12,928.81.

Bituminous Sands.—Owing to the great interest taken in the development of bituminous sands, otherwise known as tar-sands, situated on the Athabaska river, in the province of Alberta, it was decided to enact new regulations for the disposal of such rights. It is proposed in the new regulations that an applicant may obtain a permit covering a certain area of land, on which he shall erect a plant for the treatment of bituminous sands, and, when it has been demonstrated

that the plant is capable of separating the petroleum and petroleum products from the sands on a commercial basis, the permittee will be given an opportunity of acquiring a lease of a considerable area of land on payment of rental at fifty cents an acre.

The total revenue which has been derived by the Department from the disposal of tar-sand rights amounts to \$41,601.73. There are three leases now in force, comprising a total area of 3,643.20 acres.

Alkali.—Regulations have been made for the disposal of natural accumulations of soluble mineral salts, comprising, for the most part, sodium and magnesium sulphates found in a comparatively pure condition in certain of the sloughs and shallow lakes of southern Saskatchewan. Under these regulations, 43 leases have been granted, comprising a total area of 15,250.9 acres, and the revenue derived from this source during the fiscal year amounted to \$4,052.52. A number of these locations have been developed, plants for the purification and refining of the product have been erected at a very considerable cost, and large quantities of the refined salts have been disposed of to the different pulp and paper companies for use in the manufacture of certain grades of paper.

Gold Royalty.—The total amount which has been collected for royalty on gold obtained from placer deposits in Yukon Territory up to March 31, 1930, was \$4,968,155.96, of which amount \$16,438.46 was collected during the fiscal year. For the purpose of estimating royalty, the gold is valued at \$15 an ounce, which is below its real value. The total value of the gold which has been produced from placer mining operations in that territory might conservatively be placed at \$167,991,136.

Dredging.—Three leases to dredge for minerals in the beds of rivers in Yukon Territory are now in force, comprising a total river stretch of 14.43 miles. The total revenue derived from this source up to March 31, 1930, amounted to \$202,406.39. These leases comprise portions of the bed of the Klondike river.

For the purpose of gold recovery there are six dredges engaged in mining in Yukon Territory, all of which are being operated by hydro-electric motive power.

Forty leases to dredge for minerals in the beds of rivers in Manitoba, Saskatchewan, and Alberta are now in force, having a total frontage of 184½ miles. Of these leases, thirty-five are in Alberta, four in Saskatchewan, and one in Manitoba. The total revenue derived from this source amounted to \$66,209.01, of which sum \$527.20 was collected during the fiscal year.

Hydraulic Mining.—The regulations for the disposal of hydraulic mining locations in Yukon Territory were withdrawn by Order in Council dated February 4, 1904, but the leases then in force were not affected by such withdrawal. There are still five hydraulic mining locations held under lease, comprising a total area of fifteen square miles. Rentals, amounting to \$179,007.34, have been collected on account of such locations, the amount collected during the fiscal year being \$2,817.34.

Water Rights.—There are now in force in Yukon Territory 504 grants to divert water for mining purposes, under the provisions of the Yukon Placer Mining Act, which grants aggregate a total of 13,332 miner's inches.

The report for the fiscal year from the Gold Commissioner of the Yukon Territory dealing with mining in that territory is attached.

REPORT OF THE GOLD COMMISSIONER, DAWSON, YUKON TERRITORY, REGARDING
MINING

PLACER GOLD MINING

The amount of placer gold, mined during the year on which royalty export tax was paid, was 44,197·92 ounces, an increase over the previous year of 559·09 ounces.

Yukon Consolidated Gold Corporation, Limited.—This company operated dredge *Canadian No. 2* on Hydraulic Mining Lease No. 18. The dredge commenced digging on May 24, and closed down on October 1, having dredged 1,300,000 cubic yards. All of this was artificially thawed by water pumped from the Klondike river and distributed through the system by pipe lines. Three drills bored the pits in which the pipes were inserted in order to force the water to bedrock. Water was delivered under a pressure of forty-five pounds at the points.

Dredge *Canadian No. 3.*—This dredge, which had been idle since 1918, was reconditioned and commenced digging on September 25. It closed down on December 1, having dredged a total of 450,000 cubic yards. It also operated on Lease No. 18.

Dredge *Canadian No. 4.*—This dredge commenced digging on June 6, on Lease No. 18, and closed down on November 1, having dredged 1,100,000 cubic yards during the season.

Dredge *New North West No. 1* commenced operations on Upper Dominion creek on June 22, and closed down on November 1. A total of 600,000 cubic yards was dredged. All of the ground was artificially thawed, a thawing plant of 1,600 points being operated. The water for thawing was pumped from Dominion creek by two electrically driven pumps and delivered at the points under a pressure of thirty pounds.

Dredge *New North West No. 2* also operated on Dominion creek just below the town of Granville. It commenced operations on May 28, and closed down on November 21, having dredged 460,000 cubic yards. A thawing plant of 1,000 points thawed ground ahead of the dredge. The water flowed by gravity through ditches constructed under Water Grants Nos. 9024 and 9025.

Hydro-electric Power Plant.—This plant, which is operated by water taken from the north fork of the Klondike river under Water Grant No. 10, operated continuously throughout the year. Power was furnished for all the dredges which operated throughout the season. Two electrically driven shovels were operated digging an extension of the power canal 15·6 miles in length, which, when completed, will carry 20,000 inches of water from the south fork of the Klondike and discharge it into the north fork above the intake of the present ditch.

Power was also furnished to the Dawson Electric Light and Power Company for lighting the city of Dawson, and to the Dawson City Water and Power Company, for pumping and heating the water circulated through the city mains. A total of 11,565,000 K.W.H. was generated and transmitted to the various operations during the year.

Transmission Lines.—One hundred and thirty miles of high-tension power lines, which connect the power plant with the various sub-stations, were maintained in an efficient state of repair.

Hydraulics.—Two nozzles were operated at Crofton gulch and two on Lovett gulch. Water for these operations was supplied through the Twelve-mile ditch. A total of 530,000 cubic yards of gravel and bedrock was sluiced

during the season. Repairs to the ditch commenced on May 1, and were suspended on November 1. Hydraulicicking commenced on May 15, and closed on September 30.

Transportation.—Four caterpillar tractors, four trucks and nine cars were in constant use during the season. Two new trucks were purchased in 1929. On an average two hundred and twenty-five men were employed during the season.

Other Placer Operations.—Many individuals and miners working in partnership were engaged in placer mining, and experienced a successful season. The prospecting leases on Thistle creek have been renewed. Considerable work was done on them last summer with a drag-line scraper, and it is the intention to prosecute the work vigorously this summer. Prospecting leases have also been issued as follows: Five miles on Selwyn river; one mile on Nansen creek; one mile on Johnson creek (a tributary of the McQuesten river); one mile on Upper Bonanza; one mile on Victoria gulch (a tributary of Upper Bonanza); two miles on Gauvin gulch, and one mile on O'Neil gulch, which are also tributaries of Upper Bonanza, and one mile on All Gold creek.

The dredge which was lying idle in the Glacier district for many years was taken over by a new company, and they commenced operations last summer on Sixtymile creek. They employed from twelve to fifteen men during the season and dredged about 100,000 cubic yards.

LODE MINING

Dawson District.—Development work has been continued on the Lone Star group of claims on Victoria gulch. Last summer they drove a tunnel in unbroken ground 82 feet south of the old tunnel for a distance of 205 feet. The extension of the Carthey vein was crosscut 146 feet from the entrance. The vein at the point of intersection was about four and one-half feet wide. On an average six men were employed during the season. It is the intention of the company to prosecute operations during the summer of 1930.

Claims on the Fifteenmile, on the Yukon river, on Little Twelvemile, on Eldorado creek, and on Gold Run are still being held, but no extensive work has been done. The conglomerate claims on Indian river are in the same position as last year, several claims being held with the hope of obtaining capital for development.

Mayo District.—The principal operator in this district is the Treadwell Yukon Company, Limited. At the end of the year this company had under option, purchase, or located in its own name, sixty-three claims, or a total area of 1,677 acres, divided into seven separate groups for mining and prospecting purposes. During the year the company acquired the Silver King group of nine claims with an area of 274 acres. This property is located on Galena hill.

During the summer months the company shipped 6,909.49 tons of ore and concentrates containing 3,102,093 ounces of silver and 7,810,493 pounds of lead, which had a metal value of \$1,586,756.06 for the silver, \$528,360.10 for the lead, and \$3,397.66 for the gold ore, a total value of \$2,118,513.82. In addition, the company was instrumental in shipping for individual operators a total of 690 dry tons containing 185,503.92 ounces of silver and 952,092 pounds of lead, the smelter value of which was \$95,295.13 for the silver and \$62,888.03 for the lead, a total of \$158,183.16. The total production of the camp was 7,599 tons valued at \$2,276,696.98.

New Construction.—At the main camp of the Treadwell Yukon Company, Limited, a new 180-h.p. engine was installed to drive the compressor. At the Mastiff group a 1,500-foot transmission line was built to supply electrical energy for that operation.

At the Elsa group, a new bunk house and a mess house with a capacity for taking care of thirty men, were erected, as well as a blacksmith shop, compressor and change room. A 110-h.p. engine was installed to drive a new 500-cubic foot air compressor.

At the Silver King group, a new bunk house, two head frames, two ore bins, a large compressor, a hoist house and a blacksmith shop were built. This mine is equipped with a 165-h.p. engine, driving a 600-cubic foot compressor and a 75-kw. generator.

Sixteen miles of road were also constructed from the Mayo-Keno road junction at Williams creek, to facilitate handling supplies to the Mastiff, Elsa, and Silver King groups.

In the town of Mayo the company installed a 110-h.p. engine to drive a 60-kw. generator for lighting the town and furnishing power.

Outside of the operations of this company, considerable prospecting and development work has been done by individuals with promising results.

In the Beaver River district prospecting was carried on by the Consolidated Mining and Smelting Company on properties which they had under option. They employed eight men during the months of July and August, carrying out preliminary prospecting with a diamond drill. Several holes were drilled, some to a depth of 700 feet, but they have since released their options and have moved the machinery about thirty-five miles farther north on Silver hill, to the Carpenter and McLean group of claims, where drilling operations will be carried on during the coming summer.

The outlook for the future of this camp is promising, notwithstanding the drop in the price of silver. There will be more activity by individual prospectors and claim owners on the different hills.

Timber and Grazing

Despite the financial stringency which prevailed during the latter part of the fiscal year, the activities in timber, grazing, and hay continued at a high level. The total amount derived from these sources for the year was \$1,131,748.42. Although this amount represents a decrease of \$254,643.49 as compared with the previous year, yet it was considerably higher than any year prior to 1926.

During the spring and summer conditions in the lumber industry were very active, but unfortunately, owing to a great decline in building operations later, more especially in the rural sections, the demand for lumber was considerably curtailed. Because of these conditions, while the quantity of lumber manufactured shows an increase of over sixty million feet board measure as compared with the previous year, a large portion of this remained unmarketed.

Owing to the business depression in the autumn of 1929, there were fewer licence berths sold at public auction and fewer permit berths applied for. The main falling off in revenue occurred here, the decrease as compared with the previous year amounting to a little over \$210,000.00.

In the year 1925 grazing regulations were established allowing for the granting of twenty-one-year leases in the provinces of Saskatchewan and Alberta, and in the Railway Belt of British Columbia, and as this provided for more permanency of tenure, a decided impetus was given to stock raising. In spite of a lack of moisture in certain districts, a marked advance was made by holders of leases on Dominion lands. During the year 1,307 new grazing leases were issued making a total of 11,479 now in existence, covering an area of 7,221,334 acres, representing an increase of 21,443 acres over the previous fiscal year, and 494,319 acres over the year 1927-28. Stock returns show an increase over 1928-29 of 22,996 head of cattle, 23,190 horses, and 39,913 sheep, grazing on Dominion Government leaseholds.

There was a satisfactory increase in the number of hay permits taken out during the year. A total of 2,359 permits was issued to cut 26,095 tons, an increase of 359 permits, and 7,282 tons over the previous year. The total revenue from this source amounted to \$10,786.15 being an advance of \$3,799.58 as compared with 1928-29.

REVENUE

Comparative Statement of Revenue

Year	Revenue \$ cts.	Year	Revenue \$ cts.
1919.....	516,938 53	1925.....	958,136 62
1920.....	687,401 83	1926.....	1,109,013 05
1921.....	807,119 23	1927.....	1,193,905 20
1922.....	723,322 81	1928.....	1,389,978 57
1923.....	886,064 37	1929.....	1,386,391 91
1924.....	883,726 90	1930.....	1,131,748 42

DETAILS FOR FISCAL YEAR 1929-30

<i>Timber—</i>		
Bonus under licence.....	\$ 61,630 83	
Rent under licence.....	65,062 17	
Royalty under licence.....	457,530 12	
Permit fees, dues and rentals.....	361,563 62	
Seizure dues.....	11,905 04	
Licence fees.....	1,106 00	
Scaling fees.....	13,694 09	
Scale books.....	23 25	
Total for timber.....	\$ 972,515 12	
<i>Grazing, Hay, etc.—</i>		
Grazing.....	\$ 142,746 73	
Hay.....	10,786 15	
Registration fees.....	1,911 80	
Improvements.....	3,788 62	
Total for grazing, hay, etc.....	159,233 30	
Total revenue.....	\$ 1,131,748 42	

REVENUE RETURNS BY AGENCIES*

Agency	Revenue from timber \$ cts.	Revenue from grazing, hay, etc. \$ cts.	Total \$ cts.
<i>Manitoba—</i>			
Dauphin.....	11,576 35	3,437 54	15,013 89
Winnipeg, (Dominion Lands Agency).....		997 08	997 08
Winnipeg, (Crown Timber Agency).....	136,312 22	2,097 52	138,409 74
<i>Saskatchewan—</i>			
Moose Jaw.....	43 50	64,485 46	64,528 96
Prince Albert.....	120,078 47	11,462 72	131,541 19
<i>Alberta—</i>			
Calgary.....	48,805 31	15,519 82	64,325 13
Edmonton.....	253,510 68	4,181 65	257,692 33
Grande Prairie.....	4,922 29	1,220 64	6,142 93
Lethbridge.....	206 76	43,046 25	43,253 01
Peace River.....	3,828 67	3,598 51	7,427 18
<i>British Columbia—</i>			
Kamloops.....	71,641 46	8,952 66	80,594 12
New Westminster.....	294,743 13	71 91	294,815 04
Revelstoke.....	26,846 28	161 54	27,007 82
Totals.....	972,515 12	159,233 30	1,131,748 42

*In compiling the returns by agencies, moneys which were paid direct to Head Office, Ottawa, have been allocated to the agencies concerned.

TIMBER

The areas of timber berths under licence and under permit were as follows:—

Province	Square miles under licence	Square miles under permit
Manitoba.....	925 15	1,117 44
Saskatchewan.....	781 46	138 71
Alberta.....	1,167 14	349 25
British Columbia.....	1,587 49	82 74
	4,461 24	1,688 14

During the year there were 299 new berths granted, as follows, 24 licence, 34 permit, 86 fire-killed, 118 cordwood, 26 portable sawmill and 11 fringe.

The total number of berths held under licence and permit were 1,375, this being a decrease of 37 berths as compared with the previous fiscal year.

The following statements show the number of berths upon which operations were conducted, also the quantities of material manufactured and marketed, during the year under review.

Agency	Number of berths upon which operations have been conducted	
	Under licence	Under permit
Calgary.....	20	53
Edmonton.....	58	253
Prince Albert.....	43	104
Winnipeg.....	29	69
Kamloops.....	28	64
New Westminster.....	68	15
Revelstoke.....	13	46
	259	604

MATERIAL MANUFACTURED AND MARKETING UNDER LICENCE AND PERMIT BERTHS

Material	Under licence		Under permit	
	Manufactured	Marketed	Manufactured	Marketed
Lumber..... ft. B.M.	405,517,195	362,130,593	64,824,754	52,222,262
Railway ties..... number	451,469	470,305	1,070,352	1,284,406
Laths..... pieces	23,611,587	16,831,412	1,778,995	1,615,995
Shingles..... pieces			1,308,000	223,750
Shingle bolts..... cords	34,463	21,216	3,701	3,525
Piling, cribbing, etc..... lin. ft.	189,180	479,240	86,114	82,647
Telephone poles, etc..... lin. ft.	4,069,727	4,071,782	1,189,084	1,178,464
Mining timber..... lin. ft.	1,067,352	1,179,023	649,875	672,299
Mine ties..... number			121	121
Fence posts..... number	154,587	159,627	399,786	399,423
Cordwood..... cords	5,815	6,015	15,341	16,238
Slabs, edgings, etc..... cords	22,540	23,503		
Pulpwood..... cords	7,626	4,485	13,724	14,654
Railway shims..... pieces	1,590,594	1,500,594		
Poxwood..... cords	615	1,233		
Lath bolts..... cords			89	121

NOTE.—When the material sold is in excess of the quantity shown as manufactured, such excess has to be considered as being part of the material manufactured in the previous fiscal year, but not marketed during that year.

GRAZING

The total area held under lease as of March 31, 1930, was 7,221,334 acres, comprising 11,479 leases as follows:—

Province	Number of leases	Area under lease
		acres
Manitoba.....	244	95,885
Saskatchewan.....	6,952	3,463,408
Alberta.....	3,917	3,208,289
British Columbia.....	366	453,752
	11,479	7,221,334

Ordinance, Admiralty and Public Lands

There was a substantial increase in the work of this division, owing to the number of applications received to purchase fractional and accrued areas.

When this work was taken over there were over 1,400 accounts and each purchaser of Dominion lands was furnished with a copy of his account from the sales register. Where the terms of sales were seriously in arrears the purchaser was given a reasonable opportunity to place the account in good standing. Many settlers remitted substantial payments and in a few cases the full amount of the indebtedness was remitted so that patent could issue. Due to this action the revenue for the year shows a substantial increase and there was derived from the sale of fractional areas and accrued lands the sum of \$98,012.90, an increase of \$45,540.16 over the fiscal year 1928-29. The revenue from Ordinance lands was \$30,276.65 in comparison with \$24,830.09 for the previous year.

New applications to purchase received during the year numbered nearly five hundred and sales were made in 320 cases for a total of 12,882 acres made up by provinces as follows:—

Province	Number of sales	Acres
Manitoba.....		
Saskatchewan.....	25	1,147
Alberta.....	122	4,933
British Columbia.....	135	5,118
	38	1,684

Letters patent to the number of 295 were issued to the purchasers of fractional and accrued lands for an area of 19,639 acres.

In the early settlement of the prairies grants of land were authorized by Parliament to aid in the construction of colonization railways. For years it was the understanding of the Department that the grants were of the surface only and did not include the minerals underlying these lands. However, the question became the subject of litigation and when brought before the Imperial Privy Council it was held that the title to the minerals should pass to the railway companies. During the year letters patent to the number of 101 were issued to the Calgary and Edmonton Railway for minerals underlying lands

where the surface had been patented to nominees of the company. There were issued to the Canadian Pacific Railway 179 patents for an area of 3,856 acres, being mostly lands taken for right of way and other railway requirements. Other railways were granted patents to the number of 177 for an area of 17,830 acres, a portion being for land subsidy, and other work was done preliminary to the issuance of letters patent for many additional lands.

Investigations have been made in several registry offices relative to the title to Ordnance lands. This information was got as a preliminary to the making of surveys when an endeavour will be made to place the lands on a revenue-producing basis.

REPORT OF THE FINANCIAL CONTROLLER

SUMMARY of net revenue collected from various sources during the fiscal year 1929-30.

Statement A — Dominion Lands.....	\$ 4,139,131 16
“ B — School Lands.....	2,260,765 78
“ C — Ordnance Lands.....	30,276 65
“ D — Registrar's Fees.....	575 50
“ E — Casual Revenue.....	14,105 29
“ F — Fines and Forfeitures.....	3,744 44
“ G — Seed Grain and Relief Repayments.....	337,868 63
	<u>\$ 6,786,467 45</u>

STATEMENT A — Dominion Lands Revenue for the fiscal year 1929-30

Agency	Agency payments	Head Office payments	Total revenue
	\$ cts.	\$ cts.	\$ cts.
<i>Dominion Lands—</i>			
Calgary.....	26,951 11	2,353 79	29,304 90
Dauphin.....	6,443 17	405 19	6,848 36
Edmonton.....	67,934 36	5,953 58	73,887 94
Grande Prairie.....	28,615 12	354 79	28,969 91
Kamloops.....	2,955 86	1 00	2,756 86
Lethbridge.....	48,941 66	1,190 87	50,132 53
Moose Jaw.....	293,621 88	30,092 38	323,714 26
New Westminster.....	9,206 83	533 14	9,739 97
Peace River.....	38,373 75	533 49	38,907 24
Prince Albert.....	80,616 53	14,478 10	95,094 63
Revelstoke.....	941 81	71 00	1,012 81
Winnipeg.....	7,724 84	509 14	8,233 98
Miscellaneous.....	7,492 13	24,566 13	32,058 26
	<u>619,819 05</u>	<u>81,042 60</u>	<u>700,861 65</u>
<i>Crown Timber—</i>			
Calgary.....	62,646 49	1,678 64	64,325 13
Dauphin.....	14,898 04	115 85	15,013 89
Edmonton.....	251,297 94	6,394 39	257,692 33
Grande Prairie.....	6,084 93	58 00	6,142 93
Kamloops.....	80,397 86	196 26	80,594 12
Lethbridge.....	40,034 47	3,218 54	43,253 01
Kamloops.....	58,639 30	5,889 66	64,528 96
Moose Jaw.....	294,809 59	5 45	294,815 04
New Westminster.....	6,837 01	590 17	7,427 18
Peace River.....	128,060 32	3,480 87	131,541 19
Prince Albert.....	26,924 02	83 80	27,007 82
Revelstoke.....	137,360 77	2,046 05	139,406 82
Winnipeg.....			
	<u>1,107,990 74</u>	<u>23,757 68</u>	<u>1,131,748 42</u>

DOMINION LANDS

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STATEMENT A—Dominion Lands Revenue for the fiscal year 1929-30—*Conc.*

Agency	Agency payments	Head Office payments	Total revenue
<i>Forestry—</i>			
Alberta Inspectorate.....	\$ cts. 59,889 63	\$ cts. 1,012 98	\$ cts. 60,902 61
British Columbia Inspectorate.....	25,252 42	13,338 10	38,590 52
Manitoba Inspectorate.....	26,859 37	200 00	27,059 37
Saskatchewan Inspectorate.....	62,511 70	2,095 00	64,606 70
Indian Head Nursery Station.....	5,014 95		5,014 95
Forest Products Laboratory Vancouver.....		513 50	513 50
Petawawa Military Reserve.....		5,721 38	5,721 38
Miscellaneous.....		75 15	75 15
	179,528 07	22,956 11	202,484 18
<i>Water Power and Reclamation—</i>			
Calgary, Irrigation Office.....	1,143 45		1,143 45
Calgary.....	54 49	301 00	355 49
Cold Lake.....		100 00	100 00
Dauphin.....		1,050 00	1,050 00
Edmonton.....	616 03	720 10	1,336 13
Lethbridge.....	50 15	968 29	1,018 44
Moose Jaw.....	956 59	0 58	957 17
Prince Albert.....	56 70	205 50	262 20
New Westminster.....		1,243 48	1,243 48
Winnipeg.....	194 22	109,039 76	109,233 98
	3,071 63	113,628 71	116,700 34
<i>Mining—</i>			
Calgary.....	636,807 00	85,092 91	721,899 91
Cold Lake.....	24,493 47	50 00	24,543 47
Dauphin.....	7,736 71	240 65	7,977 36
Edmonton.....	254,437 30	63,932 85	318,370 15
Grande Prairie.....	270 90	123 00	393 90
Kamloops.....	3,080 13	57 82	3,137 95
Lethbridge.....	324,530 85	55,311 18	379,842 03
Moose Jaw.....	17,327 55	3,100 08	20,427 63
New Westminster.....	8,276 11	207 78	8,483 89
The Pas.....	62,150 92	172 36	62,323 28
Peace River.....	5,088 45	313 23	5,401 68
Prince Albert.....	26,341 88	5,781 08	32,122 96
Revelstoke.....	57 50	18 00	75 50
Winnipeg.....	48,927 51	1,044 82	49,972 33
Unorganized.....	215 00	3,400 70	3,615 70
	1,419,751 28	218,846 46	1,638,597 74
<i>National Parks of Canada</i>			
Antelope.....		384 00	384 00
Banff.....	146,829 53	1,781 85	148,611 38
Brereton Lakes.....		10 00	10 00
Buffalo.....	1,101 42	25,278 97	26,380 39
Elk Island.....	166 50	9,227 00	9,393 50
Fort Anne.....		1 00	1 00
Glacier.....	100 23	97 00	197 23
Jasper.....	34,609 72	513 00	35,122 72
Lake Florence.....		66 00	66 00
Kootenay.....	14,374 51	57 00	14,431 51
Point Pelee.....		266 75	266 75
Prince Albert.....	584 73	10 00	594 73
Vidal's Point.....		171 00	171 00
Waterton Lakes.....	6,155 11	287 71	6,442 82
Yoho.....	3,130 35	481 65	3,612 00
Historic sites.....		30 00	30 00
Miscellaneous.....		215 15	215 15
	207,052 10	38,878 08	245,930 18
<i>Northwest Territories—</i>			
Fort Smith.....	16,002 79	114,756 80	130,759 59
<i>Yukon Territory—</i>			
Dawson.....	77,563 90	2 00	77,565 90
White Horse.....	5,218 81		5,218 81
	82,782 71	2 00	82,784 71
Total revenue cash.....	3,635,998 37	613,868 44	4,249,866 81
Less refunds.....			110,762 32
Net revenue cash.....			4,139,104 49
Net revenue scrip.....			26 67
Total net revenue.....			4,139,131 16

DEPARTMENT OF THE INTERIOR

STATEMENT B—School Lands Revenue for the fiscal year 1929-30

Province	Gross revenue	Refunds	Net revenue
	\$ cts.	\$ cts.	\$ cts.
Manitoba.....	36,850 92	1,529 61	35,321 31
Saskatchewan.....	1,434,177 52	20,947 36	1,413,230 16
Alberta.....	820,163 27	7,948 96	812,214 31
	2,291,191 71	30,425 93	2,260,765 78

STATEMENT C—Ordinance Lands Revenue for the fiscal year 1929-30

Fiscal year	Gross revenue	Refunds	Net revenue
	\$ cts.	\$ cts.	\$ cts.
1929-1930.....	30,308 90	32 25	30,276 65

STATEMENT D—Registrar's Fees for the fiscal year 1929-30

Registration district	Gross revenue	Land assurance	Net revenue
	\$ cts.	\$ cts.	\$ cts.
Yukon Territory.....	582 09	33 09	549 00
Northwest Territories.....	26 50		26 50
	608 59	33 09	575 50

STATEMENT E—Casual Revenue for the fiscal year 1929-30

Fiscal year	Gross revenue	Refunds	Net revenue
	\$ cts.	\$ cts.	\$ cts.
1929-1930.....	14,125 54	20 25	14,105 29

STATEMENT F—Fines and Forfeitures for the fiscal year 1929-30

Authority for penalty	Gross revenue	Refunds	Net revenue
	\$ cts.	\$ cts.	\$ cts.
Dominion Parks Regulations.....	2,615 34	275 00	2,340 34
Forestry Regulations.....	37 00		37 00
Migratory Birds Convention Act.....	620 25		620 25
Northwest Game Act.....	75 00		75 00
Northwest Territories Act.....	135 00		135 00
Indian Act.....	50 00		50 00
Criminal Code of Canada.....	10 00		10 00
Magistrates fees.....	476 85		476 85
	4,019 44	275 00	3,744 44

STATEMENT G—Seed Grain and Relief Repayments for the fiscal year 1929-30

Year	Gross collections		Refunds		Net revenue	
	Principal	Interest	Principal	Interest	Principal	Interest
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1876.....	25 00	105 38			25 00	105 38
1890-91.....	22 40	38 50			22 40	38 50
1895.....	66 21	103 36			66 21	103 36
1896.....	115 66	158 40		2 54	115 66	155 86
1900.....	2 25	3 24			2 25	3 24
1901.....		0 33	4 50	5 25	Minus 4 50	Minus 4 92
1905.....	4 90	11 28			4 90	11 28
1908.....	383 57	408 95			383 57	408 95
1909.....	97 44	51 41	9 02	8 98	88 42	42 43
1911.....	796 71	648 27			796 71	648 27
1912.....	1,634 78	1,544 73		19 46	1,634 78	1,525 27
1913.....	96 37	112 65			96 37	112 65
1914.....	866 13	639 51			866 13	639 51
1915.....	109,774 59	91,508 89	2,234 09	2,554 42	107,540 50	88,954 47
1917.....	1,001 96	513 15	23 53	2 67	978 43	510 48
1918.....	10,090 10	6,899 21	20 91	602 56	10,069 19	6,296 65
1919.....	14,713 43	12,928 72	44 26	358 99	14,669 17	12,569 73
1920.....	13,846 11	10,680 17	202 27	454 34	13,643 84	10,225 83
1921.....	2,019 13	1,306 66	48 25	107 07	1,970 88	1,199 59
1922.....	1,995 33	1,361 97			1,995 33	1,361 97
1925.....	686 53	271 57		7 33	686 53	264 24
1926.....	187 25	39 68			187 25	39 68
Relief prior to 1915.....	95 34	149 03	4 35	4 65	90 99	144 38
Relief 1920-30.....	49,329 75	16,729 36	4,572 69	2,904 60	42,757 06	13,824 76
	205,850 94	146,214 42	7,163 87	7,032 86	198,687 07	139,181 56

STATEMENT H—Cash Receipts on Account of Dominion Lands Revenue for the fiscal year 1929-30

Source of revenue	Gross receipts	Refunds	Net revenue
	\$ cts.	\$ cts.	\$ cts.
Homestead fees.....	175,080 00	360 00	174,720 00
Improvements.....	61,289 88	45,213 54	16,076 34
Sales of land.....	428,123 90	4,797 38	423,326 52
Map sales, rentals, office fees, etc.....	97,537 90	2,147 08	95,390 82
Liquor permits, game licences, fur sales, etc.....	111,159 15	649 90	110,509 25
Timber dues.....	1,131,024 43	31,139 46	1,099,884 97
Grazing leases and hay permits.....	177,009 12	2,619 75	174,389 37
Irrigation and water power.....	69,997 50	443 56	69,553 94
Coal petroleum, mining, etc.....	1,708,488 15	20,155 94	1,688,332 21
National Parks of Canada.....	245,930 18	855 78	245,074 40
Miscellaneous.....	44,226 60	2,379 93	41,846 67
	4,249,866 81	110,762 32	4,139,104 49

STATEMENT I—Gross Dominion Lands Revenue Receipts compared with the previous year

Particulars	1929-30	1928-29	Increase
	\$ cts.	\$ cts.	\$ cts.
Dominion Lands.....	*700,888 32	1,033,327 84	†332,439 52
Crown Timber.....	1,131,748 42	1,386,391 91	†254,643 49
Forestry.....	202,484 18	223,265 50	†20,781 32
Water Power and Reclamation.....	116,700 34	94,774 33	21,926 01
Mining.....	1,638,597 74	1,053,581 68	585,016 06
National Parks.....	245,930 18	234,612 92	11,317 26
Northwest Territories.....	130,759 59	56,662 51	74,097 08
Yukon Territory.....	82,784 71	69,662 62	13,122 09
	4,249,893 48	4,152,279 31	97,614 17

*Including \$26.67 Scrip. †Decrease.

II

MINING SUPERVISION AND INSPECTION

REPORT OF THE SUPERVISORY MINING ENGINEER, C. C. ROSS

GENERAL

The past year has been one of steady progress in the investigation and development of mineral resources upon lands falling within the supervision of the Branch. The most striking activity is to be recorded in connection with the rapid extension of the Turner Valley oil and gas field, beginning in the latter part of last year, and leading to the location and drilling of new wells on a "boom" scale in the earlier part of the year under consideration. In the case of mining for metallic ores, serious efforts were made to investigate those deposits previously located in northern Manitoba and Saskatchewan, great progress being made in the heavy constructional programs already started at the major ore bodies of Flin Flon, and Cold Lake. The centre of gravity of the search for new districts may be said to have been transferred northwards, the eastern portion of the Northwest Territories being closely studied by organized expeditions based on aerial transport, the area of interest gradually extending westwards.

In addition to the office already established at The Pas in northern Manitoba, it was found necessary to open one at Winnipeg to enable the same services to be rendered to the mining community in central Manitoba as had shown such gratifying results in The Pas. The growing work of the Calgary office called for further additions to the staff and equipment, particularly in regard to subsurface work, and the study of methods of prevention of the waste of gas, a matter that has become increasingly important.

As in previous years, at the request of the Department of Indian Affairs, the engineers of the Calgary office have carried out inspections on the Stony, Sarcee, and Blood Indian reserves in regard to the petroleum and natural gas operations at those places.

OIL AND GAS

The year 1929-30 has shown a very gratifying increase in the production of both oil and gas, fully justifying the faith of the pioneers in the search for these minerals in Western Canada. As was to be anticipated from the trend of drilling activity in the previous year, the major share of this increase is due to the completion of development tests in Turner Valley. In fact, it may be affirmed that few, if any, deep oil areas have shown such a rapid rise in output from the inception of intensive drilling.

This increase of production, which had already begun to become noticeable towards the end of the previous year, gave the impetus to marked activity in the organization of new companies to undertake the drilling of wells in and adjacent to Turner Valley, where for a time a large number of wells were drilling. The financial depression occurring later, somewhat curtailed this activity but not before the productive area was considerably extended, notably towards the south end of the field. But little attention has been bestowed on the north end.

As a consequence of the footage drilled in and around Turner Valley, the Calgary office has been called upon to collect and examine a vast amount of sample material produced from the formations encountered. It is gratifying to

be able to record that the sampling has been carried out by operators in an exemplary manner, and the fullest co-operation with the office shown in its handling. The information thus gleaned as to the subsurface conditions of these areas, has therefore been of a high order of reliability, and it has been possible to recognize structural details which the smaller scale operations of previous years had not made possible. In accordance with the established custom, the well samples have been transferred to the Geological Survey for more detailed study, but the great bulk of these and the need of an immediate recognition of "markers" in the wells during drilling, both for the purposes of the Calgary office in the work in connection with the administration of the petroleum and natural gas regulations, and for the work of the Geological Survey, led to the establishment of closer co-operation between the two departments towards the close of the year.

The closer study of the subsurface geology has confirmed the more complex structure of Turner Valley that had been suspected to prevail since the drilling of wells began along the eastern margin of the valley. An event of great importance in this connection has been the proof obtained from the Sterling Pacific well on section 33, township 18, range 22, west of the 5th meridian, that younger formations underlie the productive limestone. This may be explained by the limestone having been thrust over the younger rocks from the westward and has, as a corollary, the occurrence at very much greater depth of the same productive horizons as have already been developed in Turner Valley. Whether the resulting structure in depth, which extends to the eastward from the proven Turner Valley field, can be reached by the drill remains to be demonstrated. Considerable drilling activity began to the west of Turner Valley, but production had not been obtained at the close of the year.

Operations at other points in Alberta were satisfactory, and productive oil has been proven at three points widely separated. The first of these, Meridian No. 1 (old Advance No. 3), located in township 45, range 1, west of the 4th meridian, on being drilled to 1,822 feet penetrated oil-bearing sand. The well was put on production during June and has been pumped intermittently since then. Continuous pumping, however, has not been possible, owing to lack of storage. The oil is 13 degrees Beaumé in gravity and carries only a small percentage of water. Two other wells are now in process of drilling on territory adjoining the discovery well.

Oil bearing formation was also penetrated at the Fuego Oil Company's No. 1 well south of Oyen and located in township 25, range 4, west of the 4th meridian. Spasmodic drilling has been in progress at this well for several years and the well was drilled without successful water shut-off being carried out. The present management, after considerable drilling difficulties, succeeded in partly shutting off the water, and carried the drilling down to 3,133 feet, where the first oil was encountered; the oil grades 10.2 degrees Beaumé. From a chemical analysis of the water it would appear that this is from a higher horizon and not in conjunction with the oil; it is therefore probable, that further wells drilled on a strict water-shut-off specification will develop a good production of commercial oil.

In the Skiff area Devenish Petroleums Limited drilled wells Nos. 2 and 3; the former of these met with negative results, as the location was found to be off structure. No 3, located close to No. 1, encountered the oil sands at 3,054 feet. The oil from this depth was of 19.5 degrees Beaumé gravity and under the departmental test gave a daily output of thirty-six barrels net of clean oil. The oil carries a small percentage of water but this, in all probability, is due to migration from No. 1 well where water is present. A test by the Dauntless Oils Limited considerably to the west of the Devenish wells, although proving the presence of a petroliferous formation, met with negative commercial results and has been abandoned.

The most important oil discovery during 1929 was that made in the Red Coulee area, five miles west of Coutts. The Vanalta No. 1 well, located in township 1, range 16, west of the 4th meridian, penetrated the productive sand at 2,467 feet, the gravity of the oil being 31.1 degrees Beaumé free from water. As this discovery has all the earmarks of a commercial pool, public interest was at once aroused on both sides of the international boundary, and several wells were at once started. Four of these have encountered commercial oil and are now in production, three being in the United States and one in Canada. At present four wells are being drilled on the Canadian side and many more are projected.

The remaining discovery was made at Kinsella, where the Duluth Syndicate, in their No. 1 well, located in township 48, range 10, west of the 4th meridian, discovered commercial gas at 2,080 feet; the initial volume exceeded twenty-seven million cubic feet per day under a pressure of 750 pounds per square inch. Further wells are projected in this area. The gas discovery in the Cypress hills south of Medicine Hat reported in last year's report was not conclusively tested as the initial well had to be abandoned. A second well is nearly ready to begin drilling.

The occasion is opportune to mention that all of the new discoveries made in 1929, excepting that at Skiff No. 3, were made solely with cable percussive tools, proving conclusively that when this drilling system is efficiently supervised and the drilling done by competent cable drillers, deep wells can be drilled and satisfactory results obtained.

At several points in Alberta deep well prospecting is in progress; of these the most important are being drilled at Spring Coulee, township 4, range 23, west of the 4th meridian, and at Duvernay, township 55, range 12, west of the 4th meridian. These two tests are being drilled with the rotary water flush system but with considerable coring of the formations encountered. Efforts to prove suitable underground structure on the prairies where oil and gas may have accumulated continue to be carried out, and although results are not conclusive the geological information gained to date is of great value.

Drilling in both Saskatchewan and Manitoba has been spasmodic and has not brought to light anything of importance. These attempts in most cases are handicapped by the isolation of the locality and the consequent difficulty in obtaining management and equipment. However, despite such drawbacks those in charge of operations deserve much credit for the work done, often under very unfavourable conditions.

PRODUCING WELLS

In order that a proper understanding of the category of producing wells be arrived at, it should be pointed out that a number of wells produced oil while drilling, others are reckoned as completed although they have not as yet produced oil or gas, and a number of wells have produced oil and gas for a number of years or are susceptible of producing. Many gas wells were closed in for the entire year or for most of the year. No census of gas wells susceptible of producing is therefore here attempted, but the collective status of oil producers is as follows:—

- 33 wells produced naphtha and gas in Turner Valley;
- 14 wells produced light crude in Turner Valley; of these, 4 also produced naphtha;
- 2 wells produced light crude in Red Coulee;
- 6 wells produced heavy crude in Wainwright;
- 1 well produced heavy crude in Skiff and another well is a potential producer;
- 1 well produced heavy crude in the Ribstone field.

This makes a total of fifty-three wells producing oil, four of which produce two grades. A number of companies continued the work of test drilling not directly intended to produce oil and gas, but rather to discover structure favourable to deep drilling. During the fiscal year in Alberta, 164 holes made an aggregate footage of 55,718 feet, while in Saskatchewan five holes made 3,583 feet.

PRODUCTION

Production in barrels for the fiscal year ended March 31, 1930, and for the previous year, together with per cent increase in production, is as follows:—

Year ended	Turner Valley		Red Coulee	Wainwright	Ribstone	Skiff	Total
	Naphtha 60° or over	Light crude 30° to 60°	Light crude 30° to 60°	Heavy crude 30° or under	Heavy crude 30° or under	Heavy crude 30° or under	
Mar. 31, 1930.....	1,038,460	70,760	7,294	14,229	2,839	1,432	1,135,014
Mar. 31, 1929.....	449,247	74,524	.....	7,953	.....	.....	531,724
Per cent increase.	131	-5	.....	79	.....	.....	91

Only in Wainwright was any water produced with oil, and in amounts relatively small in comparison with total oil produced.

STORAGE

Oil produced was consumed within short periods following production, the demand being such that in addition, considerable quantities of crude and refined products were imported. The amount of stored oil was at all times small in comparison with rate of production.

PRICE CHANGES

Naphtha is graded for refinery purposes on a colour basis, but for the purpose of these records, all oil produced from the lime in Turner Valley, and any of a gravity higher than 60 degrees coming from above the lime are grouped together. Clear naphtha ranged from \$3.44 to \$3.95 per barrel; discoloured naphtha from \$3.20 to \$3.50. Light crude prices varied to some extent with the gravity of the oil and point of production. Turner Valley light crude ranged from \$2.40 to \$3.10, while Red Coulee crude was worth \$1.90 at the refinery. Heavy crude prices are not available, as it was distilled practically at the well mouth and sold as distillate, etc. Its value may be estimated at \$1 per barrel.

OIL PIPE LINES

A four-inch line from Turner Valley to the Imperial Oil Refinery at Calgary, laid in December, 1925, handles both naphtha and light crude. During the year a four-inch line was laid from Turner Valley to the Regal Refinery at Calgary which handles both products. A composite pipe line two inches to four inches has been laid from Red Coulee field to the Maple Leaf Refinery at Coutts, but is not yet in use.

DEPARTMENT OF THE INTERIOR

NATURAL GAS USED IN ALBERTA IN 1929

(Quantities in thousands of cubic feet)

	Used	Domestic	Commercial	Industrial	Total
Turner Valley.....	16,267,158	5,829,744	1,140,453	9,714,360	16,684,557
Foremost.....	366,699				
Burdett.....	4,098				
Brooks.....	46,602				
Viking.....	2,628,133	1,702,875	579,211	346,047	2,628,133
Wainwright-Fabyan.....	755,947	55,947		700,000	755,947
Wetaskiwin.....	40 000			40,000	40,000
Redcliff.....	860,000	70,000		790,000	860,000
Medicine Hat.....	2,260,000	600 000	40,000	1,620,000	2,260,000
Totals.....	23,228,637	8,258,566	1,759,664	13,210,407	23,228,637

DRILLING ACTIVITY

Turner Valley and adjoining foothills between the Highwood and Ghost river areas are here grouped together, the remainder of Alberta being similarly treated as a unit. During the fiscal year, in the foothills area, 122 wells made 313,788 feet of hole, and of these wells, 88 were started during the year. At the close of the year 51 were drilling, 41 suspended, 10 abandoned, and 20 completed. Elsewhere in Alberta, 55 wells made 79,774 feet of hole. Of these, 42 were started during the year. At the end of the year 13 wells were still drilling, 21 suspended, 4 abandoned, and 18 completed, 10 being completed as gas wells.

In Saskatchewan, 6 wells made 8,044 feet; of these, 4 were started during the year. At the end of the year all were either suspended or abandoned. In Manitoba, 1 well was drilled to 1,012 feet. In British Columbia, 2 wells made 340 feet of hole. In addition, some work was done in the Flathead area, but as these wells did not report to this office, no accurate account of their operations can be given.

TURNER VALLEY AND VICINITY

(Locality is in Turner Valley unless otherwise stated)

Company	Well No.	Locality	1, Apr. 1929	31, Mar. 1929	Drilling	Suspended	Abandoned	Completed	Remarks
Advance.....	5		3,000	3,451			1		Abandoned, drilling difficulties.
"	5A		0	5,164	1				
Alberta Pacific Consolidated.....	T.V. 1		0	5,364	1				
"	T.V. 2		0	5,455	1				
Anaconda.....	1		0	2,610	1				
Anglo Pacific.....	1	Waite Valley.....	0	130		1			
Angus.....	1	"	0	2,050	1				
Associated.....	1		4,530	5,410				1	Completed, gas, naphtha producer.
"	2		0	3,806	1				
Atlantic Keystone.....	1	Ghost River.....	0	2,930		1			
Baltac.....	1		0	5,874				1	On test for production.
Banner.....	1	Highwood.....	0	596	1				
Baymar.....	1	Ghost River.....	0	850		1			Temporarily suspended.
Bow River.....	2	Jumping Pound.....	2,375	3,530			1		Gas obtained—unfavourable geological conditions.
British Dominion.....	2		3,800	5,177				1	Completed as gas and naphtha producer.
Brock.....	1	Waite Valley.....	0	3,710		1			
Calgary Development and Producers.....	1	Waite Valley.....	0	2,733	1				

TURNER VALLEY AND VICINITY—Continued

(Locality is in Turner Valley unless otherwise stated)

Company	Well No.	Locality	1 Apr. 1929	31 Mar. 1920	Drilling	Suspended	Abandoned	Completed	Remarks
Calmont	1		5,650	5,650	1				Efforts to sidetrack lost tools.
"	2		0	4,845	1				
"	3		0	1,582		1			Temporarily suspended—waiting rotary rig.
"	4		0	3,834		1			Suspended
"	5		0	4,082		1			Suspended
"	6		0	3,770		1			
"	7		0	3,995	1				
"	8		0	1,602		1			
"	9		4,930	4,930		1			Formerly Seneca—tried to deepen—suspended.
"	10		0	1,604		1			
"	11		0	461		1			
"	12		0						Derrick up.
Commonwealth	T. V. 1		0	4,421		1			Testing oil production.
Dalvin	1		0	3,319		1			Suspended.
Dalhousie	1		4,565	4,565					Intermittent producer gas, naphtha.
"	5		4,900	4,900				1	Steady producer, light crude.
"	6		5,593	5,593				1	Steady producer, gas and naphtha.
"	7		0	5,014		1			Waiting diamond drill.
Dome	1		0	5,720	1				Gas and oil showings.
East Crest	1		3,725	4,412	1				Fishing.
"	2		0	3,208			1		Abandoned, drilling difficulties.
"	2A		0	1,468	1				Drilling.
Elbow	1	Bragg Creek	0	3,041		1			Temporarily suspended.
Foothills	1		5,914	5,914				1	Steady producer gas, naphtha.
"	2		3,787	4,710				1	
"	3		0	6,054	1				
"	4		0	4,559			1		Abandoned, unfavourable geological conditions and drilling difficulties.
Freehold	1		2,535	4,825		1			Suspended.
"	2		0	4,226	1				
"	3		0	55		1			
Frontier	1		875	2,240			1		Abandoned—unfavourable geological conditions.
Gibraltar	1	Waite Valley	0	1,430		1			
Hargal	1		0	5,150	1				
Herron	1	Bragg Creek	0	1,420	1				
Highwood	1	Highwood	4,152	4,525			1		Unfavourable geological conditions and no production.
Home	1		5,280	5,280				1	Large intermittent producer light crude gas, naphtha.
"	2		5,353	5,507				1	Large producer light crude gas, naphtha.
"	3		5,033	5,139				1	Large producer, gas, naphtha.
"	4		0	5,601				1	Large producer, gas, naphtha.
"	5		0	4,492	1				
"	6		0	2,693	1				
Homestead	1		0	4,440	1				
Hudson's Bay	1	Highwood	0	1,425	1				
Hylo	1		0	2,610		1			Suspended.
Illinois-Alberta	1		3,861	3,861				1	Steady producer gas, naphtha
"	2		3,622	3,650		1			Suspended.
Indian	1	Rickert	0	1,130		1			
Innerfold	1	Waite Valley	0	3,345	1				
Invaders	1		0	4,740	1				
Lowery	1		0	5,473				1	Completed, gas, naphtha producer.
Lundy-Freeman	1		0	5,163	1				Drilling, gas and oil shows.
Mayland	1		5,235	6,242		1			Shut down.
"	2		0	3,946	1				
"	3		0	4,466	1				
Melbourne	1	Stony I.R.	2,130	2,258		1			Suspended.
Mercury	1		200	4,575		1			Suspended—waiting rotary rig.
"	2		0	4,972	1				
"	3		0	5,123		1			Started as Sunlight No. 1. suspended.
"	5		0	2,140	1				
Merland	1		0	4,470		1			Some production, naphtha. to deepen.
Midfield	1		500	3,728	1				
Mid Royal	1		0	2,140		1			Suspended.
Mill City	1		0	400			1		Abandoned—drilling difficulties.
"	1A		0	4,957	1				Fishing.

TURNER VALLEY AND VICINITY—(Locality is in Turner Valley unless otherwise stated)—Continued

Company	Well No.	Locality	1, Apr. 1929	31, Mar. 1920	Drilling	Suspended	Abandoned	Completed	Remarks
Miracle	1		0	3,960		1			
Model	1		4,235	5,905				1	Completed as gas and naphtha producer.
Moose Oils	1	Moose Mtn	0	2,440	1				
McLeod	1		3,930	3,930				1	Producer, gas, naphtha.
"	2		4,360	4,420				1	" " "
"	3		4,881	4,973				1	" " "
"	4		4,972	5,230				1	" " "
"	5		0	3,240	1				
New McDougall-Segur	1		2,495				1		Abandoned, drilling difficulties.
" " "	2		5,150	5,352				1	Completed, gas, naphtha producer.
" " "	3		3,285	4,646	1				
" " "	4		0	4,150	1				
Northwest, Calgary and Edmonton	1		0	2,103	1				
Okalt	1		5,040	5,040				1	Intermittent producer gas naphtha.
"	2		3,171	4,458	1				Producer light crude while drilling.
"	3		2,550	4,038	1				Producer light crude while drilling.
"	4		0	1,664		1			Suspended.
"	5		0	1,623		1			Suspended.
Outwest Petroleums	1	New Black Diamond	0	3,702			1		Abandoned, unfavourable geological conditions.
Paramount Oils	1	Rickert	0	1,832	1				
Ranger Oils	1		0	893		1			
Regent Oil Co.	1		3,870	3,908				1	Completed, gas, naphtha producer.
" " "	2		0	1,978		1			Suspended,
" " "	3		0	2,445		1			
Richfield	1	Waite Valley	0	4,150	1				
Rockland	2	Stony I. R.	0	1,018		1			Suspended — (Gold Coin).
Roschite	1	New Black Diamond	0	835		1			Suspended.
Royalite	1		3,924	3,924				1	Small gas producer
"	2		3,170	3,170				1	Inactive.
"	3		2,830	2,830				1	Small gas producer.
"	4		3,740	3,740				1	Producer gas, naphtha.
"	6		4,531	4,531				1	Gas, naphtha, producer
"	7		4,208	4,208				1	Gas, naphtha producer under repair.
"	8		3,753	3,753				1	Gas, naphtha producer
"	9		5,593	5,593				1	" "
"	10		2,332	2,332				1	Produced light crude, inactive.
"	11		2,474	2,474				1	" "
"	12		3,840	5,444	1				
"	13		4,946	4,946				1	Producer, gas, naphtha.
"	14		3,656	3,757				1	" "
"	15		3,047	3,047				1	Producer, light crude.
"	16		5,060	6,224				1	Testing for production.
"	17		3,965	4,034				1	Producer, gas, naphtha.
"	18		3,887	3,887				1	" "
"	19		4,110	4,651	1				
"	20		3,174	3,210				1	Producer, light crude.
"	21		3,350	5,034				1	Producer, light crude, gas, naphtha.
"	22		2,250	2,250					Drilled for gas storage, inactive.
"	23		1,500	5,331				1	To shoot well for production.
"	24			2,074	1				
Signal Hill	2	Bragg Creek	2,700	3,907					Oil showings
Sinclair Morley	1	Stony I. R.	0	1,594		1			Gas showings (Norcon)
Sioux City	1		0	4,404	1				Produced oil while drilling
Southern Lowery	1		0	2,945	1				
Spooner	1		5,230	5,230				1	Producer gas, naphtha
"	2		5,160	5,983				1	" "
"	3		0	3,240			1		Abandoned—unfavourable geological conditions
Spray	1		0	2,220	1				
Sterling Pacific	1		0	6,525				1	Producing naphtha and gas.
Structure	1		0	3,405				1	Produced some oil while drilling.
Stockmen	1		5,300	5,300				1	Produced some gas
Turner Basin	3		0	3,735		1			Suspended—(Successor of Stockmen)
United Oils	4		5,377	5,377				1	Producer, light crude
Vanalta	T.V. 1		0	2,999		1			Suspended.
Vanberta	1	New Black Diamond	0	846		1			Suspended.
"	2		0	115					
Vimy Oils	1		0	3,550		1			Suspended.
Vulcan	1		5,030	5,030				1	Producer gas, naphtha
Wabash	1	Stony I. R.	20,71	3,056	1				Gas shows
Warner	2	Highwood	0	1,310			1		Abandoned—drilling difficulties.
"	3	"	0	2,485	1				

TURNER VALLEY AND VICINITY—(Locality is in Turner Valley unless otherwise stated)—*Concluded*

Company	Well No.	Locality	1, Apr. 1929	31, Mar. 1930	Drilling	Suspended	Abandoned	Completed	Remarks
Wellington	1		0	4,755	1				
Western Alberta	1		0	3,200	1				
Weymarn	1	New Black							
		Diamond	1,320	3,695	1				
Widney	1		0	3,252				1	Producer, light crude.

OTHER AREAS IN ALBERTA

Admiral Oils	1	Wainwright	0	2,698	1				
Alberta Clay Products	3		0	157	1				
Alberta Gas and Fuel	1	Champion	0	2,750			1		Abandoned, drilling difficulties and unfavourable geological conditions
Bituminous Sand Extraction Co.		McMurray	165	165		1			(2 wells) suspended
Beaumont	1	Wainwright	0	2,183				1	Completed—not yet pumped
	2		0	668		1			Suspended, temporarily
Bethwain	1	"	0	2,485		1			Suspended
	2	"	0	2,154		1			Suspended
British Petroleum	3B	"	2,250	2,250				1	Oil producer
British Wainwright		"	2,238	2,238				1	Completed—not pumped
Capitol Oil & Gas	1A	Milk River	0	3,310	1				
Cole	1	Taber	0	3,319	1				
Commonwealth	1	Milk River	1,390	3,694	1				
	1	Red Coulee	0	720	1				
Dauntless	1	Skiff	0	3,295		1			Testing oil sand
Devenish	1	"	3,088	3,088				1	Potential oil producer
	3	"	3,061	3,079				1	Produced some oil.
Eagle Butte	1	Cypress Hills	3,340	4,002			1		Abandoned.
	2	"	0	30		1			
Edalta	1	Wainwright	0	2,098		1			Suspended
Edmonton Wainwright	1	"	2,250	2,250				1	Oil producer
Fabyan	1	"	1,778	1,878		1			Suspended—some oil
Fuego	1	Oyen	2,215	3,165	1				Some oil and gas
Globe	1	Pigeon Lake	1,200	1,200			1		Some repairs—abandoned
High River Oilfields	1	High River	0	269		1			Suspended
Hudson's Bay Oil & Gas	2	Viking	0	2,150				1	Gas producer
"	1	Eyremore	0	990			1		Abandoned—drilling difficulties
"	1S	"	0	1,300	1				
Int. Bitumen		McMurray							
Kotop	1	Red Coulee	0	1,650		1			
London Ribstone	2	Dunn	0	1,630		1			Suspended
Madison	2	Milk River	730	1,810		1			Suspended
Maple Leaf	1	Wainwright	1,776	1,776		1			Gas producer
	2	"	0	1,775		1			Gas producer
Medicine Hat	48	Medicine Hat	0	1,098				1	Gas producer (C.P.R. No. 4)
"	49	"	0	1,012				1	
"	50	"	0	1,025				1	(Med. Hat Brick & Tile Co.)
Meridian	1	"	1,820	1,834				1	Oil producer
	2	"	0	1,776		1			
McDonald	1	Kinsella	0	2,081				1	(Duluth Syndicate)
Northwestern Utilities	16	Viking	0	2,140				1	Gas producer
"	17	"	0	2,215				1	Gas producer
"	18	"	0	2,118				1	"
"	19	"	0	250	1				Drilling
"	20	"	0	0					Ready to drill
Onalto	1	Wainwright	0	1,922		1			Suspended temporarily
Ontario-Alberta	1	Suffield	2,210	3,343		1			
Oxville	1	Oxville	0	1,925		1			
Peninsular	1	Wainwright	0	227		1			Drilling
Ranchmens	1	Aldersyde	3,000	3,960		1			
Range	2	Milk River	990	2,100		1			Suspended
Ribstone Oils	2	Ribstone	2,100	3,230		1			Suspended
Ribstone Imperial	2	"	0	833		1			
Sasko-Wainwright	1	Wainwright	2,247	2,247				1	Oil producer
Sentinel	1	Black Diamond	4,615	5,811		1			Suspended
Twin Dome	1	De Winton	0	1,255		1			Suspended
Vanalta	1	Red Coulee	0	2,477				1	Oil producer, light crude
	2	"	0	2,478				1	"
Wainwell	1	Wainwright	2,072	2,225				1	Oil producer, hole cemented back to 2,068 feet.
"	2A	"	2,034	2,034				1	Gas producer
"	4	"	0	2,054				1	Oil producer
Wainwright Pet.	1	"	0	2,252				1	Completed—not produced
Western Consolidated	1	"	1,360				1		Abandoned by Onalto
Weymarn	1	Pincher Creek	975			1			Attempted to deepen—suspended—formerly Mount Royal
"	2	"	0	1,430	1				Drilling

NOTE:—This list includes oil wells that produced oil during the fiscal year, but does not include gas wells previously drilled and still producing gas, or potential producers of natural gas.

DEPARTMENT OF THE INTERIOR

SASKATCHEWAN

Company	Well No.	Locality	1, Apr. 1929	31, Mar. 1930	Remarks
Citizens Oil & Gas.....	3	Vera.....	0	1,850	Suspended—(formerly Unity Valley)
Eden Valley.....	1	.....	0	585	Suspended
Gessell Delta.....	.....	.....	227	.....	.....
Pike Lake.....	1	Pike Lake.....	0	3,155	Abandoned
Simpson.....	1	Simpson.....	2,170	2,180	Suspended
Vermilion Hills.....	1	Vermilion Hills.....	0	264	Suspended

MANITOBA

Dauphin.....	1	Dauphin.....	0	1,012	
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BRITISH COLUMBIA

Sumas.....	1	524	711	Abandoned—drilling difficulties
".....	2	0	153	Suspended

NOTE:—There was also some work done in the Flathead district but accurate figures are not available, as the companies did not report to this office.

CONSERVATION OF GAS

As pointed out in the annual report for the fiscal year ended March 31, 1929, the surplus of gas in Turner Valley had assumed large proportions, necessitating burning for safe disposal. The burning of waste gas has taken place since the bringing in of the well known as Royalite No. 4 in 1924, but until towards the close of the fiscal year mentioned, it assumed large proportions only during the season of small demand in the summer.

So soon as the waste became not only great, but continuous, joint action was decided upon by the Dominion and Alberta governments, and a committee was appointed in May, 1929, to investigate and report upon the situation. The investigation was to explore the possibilities of the following:—

- (1) Conservation of the gas by storage underground.
- (2) Restriction of production.
- (3) Utilization of the gas (a) as a fuel, or (b) as a source of other materials such as carbon black, chemical products, etc.

The Department of the Interior was represented on the committee, which was under the chairmanship of Dr. C. Camsell, Deputy Minister of Mines, by Mr. C. C. Ross, Supervisory Mining Engineer.

The study of these problems, which has been carried on by officers of the department in the field since waste became apparent, was continued and extended, and in addition the Supervisory Mining Engineer carried out an investigation in the more important fields of the United States, where analogous conditions prevail, to ascertain the latest practice there in regard to the first two points above enumerated. In the final report the committee stated that they considered that the only solution which would make conservation possible was recognition of the fact that Turner Valley was a gas field, and the formulation of rigid regulations for the purpose of controlling all phases of the gas producing industry. They found that all other measures could only be palliative.

COAL MINING

Alberta

In Alberta, coal is found in three horizons of the Cretaceous rocks and in small areas in the Tertiary. The principal localities where coal mining development has taken place are as follows:—

KOOTENAY SERIES

Crowsnest Pass District.—In this area, which includes Coleman, Blairmore, Bellevue, Frank, Hillcrest, and Passburg, the seams worked vary from six to eighteen feet and pitch up to 60 degrees. The coal lying above water-level has supplied the major portion of the output in former years, but as this easily mined coal has gradually worked out, dip workings have been developed. These lower workings require considerable pumping to keep them clear of water. The main supply of locomotive fuel for the Canadian Pacific Railway in the prairie divisions is drawn from this district. Coke ovens were formerly operated at Coleman, Lille, and Passburg, but owing to the lack of demand by the smelters of southern British Columbia, the making of coke was discontinued. Owing to the occurrence of two explosions in the Crowsnest district during the year 1926, rock dusting has been introduced as a means of preventing the spread of an explosion in the coal-dust-charged mine atmosphere. Dry-cleaning plants have been installed at the principal mines, whilst at Bellevue a wet-washer has been added to the cleaning equipment.

Canmore District.—At Canmore semi-bituminous coal is mined and is largely disposed of as railway locomotive fuel. A briquetting plant is in operation, and 26,180 tons of coal were used in making briquettes. These were sold for household fuel in the territory between Vancouver and Winnipeg. The coal measures at this point have been subjected to very complicated folding. Two seams varying from five to ten feet in thickness are being mined.

Brazeau District.—In the Nordegg area semi-bituminous coal is mined on a large scale from two seams, one seven feet and the other fourteen feet in thickness with a dip of about 12 degrees. The output is disposed of to the Canadian National Railways as locomotive fuel. A dry-cleaning plant is operated at this property.

Mountain Park District.—At Mountain Park, Cadomin, and Luscar, bituminous coal is mined on a large scale. The seams vary in thickness from five to fifty feet with dips of from 30 to 80 degrees. At Cadomin two shafts have been sunk to give access to the lower levels of the seams which have hitherto been worked above the river level. Prospecting has been carried out north of Luscar and new development is contemplated as soon as arrangements are completed for the extension of the Luscar spur, part of the Mountain Park branch of the Canadian National Railways. Since the abandonment by the Blue Diamond Coal Company of their operations at Brulé, the company have staked out large claims in the Hay River area about thirty-five miles northwest of Solomon. Surface prospecting of the coal measures in these areas has been carried out.

BELLY RIVER SERIES

Lethbridge-Taber District.—The principal operations in this formation are carried on in the vicinity of Lethbridge, where several companies have large and well-equipped plants. The seams are reached either by shafts or slopes, varying in depth from 300 to 600 feet. The seam worked is about 4 feet 4 inches thick and is horizontal. The continuity of the seam generally is interrupted

by a series of small faults varying from two to ten feet. The development started by the Cadillac Coal Company, Limited, on the Kipp-Retlaw extension of the Canadian Pacific Railway has been continued, and the property brought into the production stage and operated throughout the year. The mine is located on the northern portion of the Lethbridge field. At Taber a lower seam in this formation has been worked for several years but only small-scale operations are now being conducted. The Leland Coal Company suspended operations at the Canada West mine and the equipment is being dismantled. Seams in the Foremost beds of the above series are worked as small, country-bank-mines at several points in the southern portion of the province and supply fuel for local use.

Brazeau District.—On the Brazeau branch of the Canadian National Railways the mines operated by the Bighorn and Saunders Creek and Alexo Coal companies have continued in operation throughout the year. New equipment and coal-cutting machinery have been installed.

Coalspur District.—In the Coalspur area, the open pit mines at Stereo and Coal Valley have continued in operation. The Lakeside Coal Company—formerly the Balkan Coal Company—at Minehead have installed a new screening plant and equipment. At Hinton, on the main line of the Canadian National Railways, the operations by the Alberta Mountain Collieries, Limited, have been suspended. The Jasper Coal Company, Limited, have installed spur tracks and modern tippie and have extended their underground development, and are now on a shipping basis. Further prospecting has been carried out by means of core drills by various lessees in this district.

Grande Prairie District.—In the Grande Prairie district the coal seams worked are three feet thick, the output being disposed of for local use. Only small scale operations are being conducted.

EDMONTON SERIES

Drumheller-Rosedale-East Coulee District.—The most fully developed area and the largest producers from this horizon are located in the Red Deer valley at Drumheller, Rosedale, and East Coulee. The seams worked vary in thickness from four to nine feet.

The Drumheller Consolidated Collieries, having acquired the equipment of the Scranton mine, have utilized this for the development of their holdings on the north side of the Drumheller valley. New property is being developed by a slope into the upper or Newcastle seam. It is proposed to sink to the lower or Drumheller seam at a later period.

Sheerness District.—Smaller operations are being carried on in this series at Sheerness, where the lower coal seams are mined by both stripping and shafts.

Three Hills-Ardley District.—The upper coal horizons of this formation are worked at Three Hills, Ardley, and several small country mines along the Red Deer river. The Carbondale Coal Company's mine at Ardley was closed down during the year.

Edmonton-Pembina District.—The largest installation on the seam is at Evansburg in the Pembina district on the main line of the Canadian National Railways, sixty miles west of Edmonton, and at Cardiff on the Edmonton, Dunvegan and British Columbia Railway. During the year the annual inspections have been carried out for the purpose of checking up quantities of coal extracted from the various leases on Dominion and School lands. Samples have been collected from some of the mines and analyses made at the Calgary office for the information of the operators.

Saskatchewan

During the year, in addition to the ninety-five regular inspections, many other visits were paid to mines for various causes. An Order in Council was passed authorizing settlers in certain districts to mine coal for their own use in vacant Dominion lands. The briquetting plant of the Western Dominion Collieries operated during the greater part of the year, and briquetting now appears to be established as a permanent industry in this district, a market being found for the briquettes in Winnipeg and elsewhere. It is pleasing to note that there were no fatal accidents during the year.

QUARTZ MINING

The coming into force of the new Quartz Mining Regulations on April 1, 1929, added to the duties of the staff of the Supervisory Mining Engineer, the inspection of mineral claims for certificates of work and improvements. This entailed the covering by the mining inspectors of large areas in northern and eastern Manitoba, and northern Saskatchewan, and from Rankin inlet on Hudson bay to Great Slave lake, Northwest Territories. On these trips, many of which were made by aeroplane, detailed information was collected regarding the organization, holdings and activities of the many mining and prospecting companies operating in the various areas.

For the benefit and convenience of prospectors and others engaged in the mining industry, it was decided to issue new, specially compiled maps of the mining districts tributary to The Pas. These maps, which were compiled in the Ottawa office, were prepared in subdivisions, according to international map scale, from aeroplane surveys, and details secured from sketches of claims staked, and from first-hand information gathered by close contact with the mining areas. Blue prints were run off and distributed through The Pas office. Owing to the growing activity in the Winnipeg district, particularly in the Rice Lake and Lac du Bonnet Mining division, a sub-office was opened in Winnipeg. During the year 57 claims were inspected for certificates of work, and 160 for certificates of improvement. Many of these inspections were made by canoe and outboard motors and 7,827 miles in 96 flying hours were covered by aeroplane.

PROSPECTING ACTIVITIES

The following five companies were active in prospecting in the Northwest Territories, Manitoba, and Saskatchewan:—

Northern Aerial Minerals Exploration Limited.—A number of this company's planes were in service, whose main activities were centered in the pre-Cambrian areas west of Hudson bay, with their base at Baker lake. Two other parties based at Oxford lake reported some interesting country east of God's lake on God's river, and in the vicinity of Red Sucker lake, Saskatchewan.

Dominion Explorers, Limited.—Planes belonging to this company were very active in the Northwest Territories, operating to the west of Hudson bay and along the Arctic coast from bases at Tavane, Baker lake, and the Burnside river (Bathurst inlet). The company acquired a group of claims at Axis lake, east of lake Athabaska. After doing considerable diamond drilling and trenching, operations were closed down, and the equipment moved farther north for the opening of the ensuing season.

Nipissing Mining Company.—Prospecting was confined by this company to the country tributary to Mistake bay, N.W.T., and to the Reindeer Lake area of Manitoba and Saskatchewan, where a large sulphide deposit is being drilled.

The Cyril Knight Prospecting Company.—This company had parties on Island lake, northern and eastern Manitoba, and on Rankin inlet on the west shore of Hudson bay, where assessment work was performed on four claims.

The Consolidated Mining and Smelting Company.—Prospecting was carried out by this company in the Bird River area of the Winnipeg mining district. In northern Manitoba, prospecting was more or less general, in areas closely adjoining the railways, but the number of stakings was below that of last year.

A number of claims were staked in the Lac du Bonnet and Rice Lake mining divisions of the Winnipeg mining district, and around Slate lake, and more or less generally throughout the gold areas along the Manigotagan and Wanipigow rivers. There was also some heavy staking in the early part of the year in the tin area around Bernic, Shatford, and Bird lakes, and later in the year, a few at West Hawk lake. About eighty claims were staked at East Braintree some seventy-five miles east of Winnipeg on a number of large sulphide dykes carrying some chalcopyrite.

There was greater activity in northern Saskatchewan than in the previous year. Heavy stakings were made at Forbes and Montgomery lakes and at lac La Ronge. The development of the lead-zinc deposits south of Pine point on Great Slave lake stimulated activities in the country tributary to the Mackenzie river, and a great increase in stakings was reported at Fort Smith.

CLAIMS RECORDED

The number of mining claims recorded by districts is given as follows:—

District	Jan. 1 to Dec. 31, 1929
The Pas mining district.....	1,972
Cold Lake mining district.....	601
Prince Albert mining district.....	1,041
Northwest Territories.....	469
Winnipeg mining district.....	2,185
Total.....	6,268 claims

PRODUCTION

The one producing property is that of the Central Manitoba Mines Limited at Long lake in the Rice Lake division of the Winnipeg mining district. This mine is about 100 miles northeast of the city of Winnipeg as the crow flies. It operated continuously throughout the year 1929, 58,810 tons of ore were hoisted and 54,674 tons treated in the cyanide mill, operating at a capacity of about 150 tons a day. Stopping was done at 125, 200, 250, and 375-foot levels; 51,365 feet of underground development work was done during the year, and 5,531 feet of holes drilled both underground and on the surface in exploration work.

MINES DEVELOPING

Hudson Bay Mining and Smelting Company.—This company displayed much activity throughout the year, 2,000 men were employed continuously and great progress was made in the construction of the concentrating plant, zinc refinery, crushing plant, power house, copper smelter, shaft house, and the various shops and other buildings. The main shaft, a five-compartment vertical shaft lined with steel, is now down to a depth of 650 feet; 106,000 tons of material of all kinds have been shipped in; 30,000 tons more remain to be shipped. The company expects to go into production early in 1931.

Sherritt-Gordon Mines, Limited.—These mines were active throughout the year. The main shaft, a five-compartment shaft inclined at an angle of 51

degrees, was sunk to a depth of 625 feet. Stations have been cut at the 250, 350, and 500-foot levels. Great progress has been made with the construction of the various mill buildings; 118 diamond drill holes have been put down to date totalling 41,614 feet, and the total length of shaft, drifting, cross-cutting and raising amounts to over 16,000 feet.

Mandy Mines Limited.—This mine is situated in The Pas mining district, about eighty miles north of The Pas, Manitoba. During 1929 development work was carried on continuously until early in December, when operations were suspended. The two-compartment shaft was put down to a depth of 1,025 feet. Drifting and cross-cutting was done on levels at 100-foot intervals. Total lateral work to date over 8,000 feet. Diamond drilling was done on the surface and underground on the tenth level. Thirty-five men were employed.

San Antonio Mines Limited.—This property was worked continuously throughout 1929, a force of twenty-five men being employed. The development work done in sinking, cross-cutting and drifting amounted to 2,788 feet. In working at the 725-foot level two well-defined veins were encountered. The results of the year's operations were very encouraging to the company. This property is in the Rice Lake mining division of the Winnipeg mining district at a distance of about 100 miles east of north of the city of Winnipeg.

Gem Lake Mines, Limited.—This mine was worked continuously through 1929. Development work in sinking, cross-cutting, drifting, slashing and station-cutting totalled 5,111 feet. Two veins have been cut on the 125, 250, 375, and 500-foot levels, carrying ore shoots averaging 3.5 feet wide. Results on this property to date have been encouraging. This mine is in the Rice Lake division of the Winnipeg mining district, about 40 miles southeast of the San Antonio.

Northern Lead Zinc Company Limited.—The properties of this company are located south of Pine point, Great Slave lake, N.W.T. Together with its affiliated prospecting company, the General Exploration Company, the Northern Lead Zinc Company Limited controls a total of 448 mineral claims in this area. A party of workmen was taken in to this property in March, 1929, and work has progressed continuously since. Sixty-nine test pits have been dug to date on four different areas to an average depth of fifteen feet; the average depth of boulder clay is given as from seven to nine feet. The ore occurs in sink holes in the Presqu'île dolomite. It is a high-grade mixture of galena and sphalerite. Sufficient work has not been done to establish the vertical thickness of the deposits, but it is believed that the area which will be found to be occupied by the deposits will be very considerable.

Jack Nutt Mines Limited.—Operations were carried out by this company throughout 1929 at Bernic lake, Lac du Bonnet mining division, Winnipeg mining district. A two-compartment shaft was sunk to a depth of 170 feet and four holes drilled on a pegmatite dyke containing some cassiterite. A radiore survey was made of claims at Bernic lake and at Rush lake.

Manitoba Tin Company, Limited.—This company sank a shaft to a depth of 100 feet on a pegmatite dyke at their properties on Shatford lake. About 300 feet of cross-cutting and drifting was done at the 100-foot level. Operations were suspended in November, 1929.

SURFACE EXPLORATION WORK

Many companies and syndicates confined their attention during the year to trenching and surface exploration work of their holdings, in the Winnipeg and The Pas mining districts in the province of Manitoba.

OPTIONS WORKED

The Consolidated Mining and Smelting Company optioned and drilled the Don Jon claim of Flintoba Mines Limited at Thompson lake. The Consolidated Mining and Smelting Company also optioned and drilled the Davidson Montgomery claims at Forbes lake. Late in 1929 this company took an option on the Lynx group of claims on Oxford lake and sent a party of eight men to this property to open up test pits for sampling purposes.

Ventures Limited optioned and put eighteen diamond drill holes down on the Matson Adair holdings at Hyres Island, Oxford Lake, early in 1929.

Towards the close of the year the Mandy Mines Limited optioned the Baker Patton holdings of the Callinan Flin Flon Mines Limited at Sourdough bay and did 4,000 feet of diamond drilling.

III

FORESTRY

REPORT OF THE DIRECTOR OF FORESTRY, E. H. FINLAYSON

In the year under review agreements were signed with the western provinces for the return of the natural resources, including the forests. This action will relieve the Forest Service of its former administrative functions with regard to the protection and management of forest lands. The change will enable it to concentrate on investigation, research, and experiment, and to give leadership to the provinces and the forest industries. In particular this Service will be in a position to avail itself of the additional opportunities which are presented for investigation into basic forest-protection problems, for silvicultural researches into the rates and conditions of growth of Canadian tree species, for forest-products research looking to the closer utilization of Canadian raw materials, and for the more intensive prosecution of the national inventory of forest resources now actively under way.

The forest fire situation in Canada during the year 1929 was one of the most severe ever experienced and might easily have been the most disastrous in our history but for the development in protection facilities which has taken place in recent years. The area most affected extended from western Ontario to the Pacific coast. Throughout that region snowfall during the two preceding winters had been very deficient. In addition the spring and summer of 1929 were characterized by almost complete lack of rain. This condition, combined with extended periods of high winds, created an unparalleled drought situation throughout Western Canada. The expenditure on fire fighting alone was almost \$1,250,000, the highest on record in the history of fire protection in Canada.

The following table, compiled by the Forest Service from returns made by the different forest authorities, gives in detail the figures of forest fires in Canada for the year 1929 as compared with the average for the five-year period 1925-29 inclusive.

Item	Year 1929	Average per year 1925-1929 inclusive
Total number of fires.....	6,685	5,146
Total area burned over (acres).....	6,030,749	2,319,074
Merchantable timber—		
Area burned (acres).....	674,226	376,223
Timber burned (M ft. B.M.	508,715	455,125
(cords).....	2,005,386	1,634,821
Estimated stumpage value.....	\$2,379,582	\$ 2,532,868
Young growth—		
Area burned (acres).....	1,023,111	531,836
Estimated value.....	\$2,004,759	\$ 1,013,925
Cut-over—		
Area burned (acres).....	340,225	172,161
Estimated value.....	285,569	\$ 130,002
Non-forested—		
Area burned (acres).....	4,128,901	1,275,283
Other property burned—		
Value.....	\$ 301,499	\$ 441,883
Actual cost of fire-fighting.....	\$1,239,345	\$ 630,624
Total gross damage and loss.....	\$6,210,754	\$ 4,749,302

In accordance with an undertaking made to the provinces at the national forest inventory conference in June, 1929, the Research Division of the Forest Service concentrated its work largely on the inauguration of rate-of-growth studies in the main forest regions of Eastern Canada. The usual research activities were, however, continued at the forest experiment stations at Petawawa, Lake Edward, and elsewhere. In addition, a new experiment station was instituted at the forest nursery at Indian Head, Saskatchewan, dealing largely with pathological problems of Western Canadian species. The Forest Products Laboratories, having become settled in their new sites, turned their activities to carrying out research programs the scope of which it has been possible to enlarge considerably by reason of increased staff and equipment.

NATIONAL INVENTORY OF FOREST RESOURCES

At the conference of the federal and provincial forest authorities held in Ottawa, June 25 to 27, 1929, it was decided to conduct a national inventory of forest resources. The provincial authorities administering forests undertook to carry on the work in their respective provinces, and the Dominion Forest Service to conduct the inventory in the Prairie Provinces and to co-operate with and assist the other provinces as far as means were available. It was also agreed that the Forest Service should act as a clearing-house for information regarding the existing forest resources and their depletion and increment, the provinces furnishing reports of surveys and investigations as completed. The completion of the inventory (of the accessible area, at least) in five years was set as an objective.

Pursuant to the scheme adopted by this conference the Forest Service immediately commenced the inventory in the three Prairie Provinces by detailing a forest officer in each to collect and compile all existing data, examine areas concerning which reliable information was lacking, and keep records of depletion due to cutting, fire, etc. In 1929 three stock-taking survey parties were placed in the field in Manitoba and one in Saskatchewan, and in 1930 there will also be one in each of these two provinces.

Each province has been divided into a number of districts based primarily on drainage areas, and for each of these districts separate reports are being compiled showing the classification of the area as to tenure (privately owned, leased, or unalienated), farm land, waste land, and non-productive or productive forest. The latter is subdivided into softwood, hardwood, and mixed types of merchantable timber and young growth. The areas of virgin forest and cut-over and burned-over land are also recorded. An estimate of the amount of timber of merchantable size suitable for lumber, pulpwood, ties, poles, posts, etc., of each species is being compiled. The annual cut for all purposes and the losses from fire, insects, and disease are being estimated as closely as possible.

As a result of the extensive forest surveys conducted in Manitoba during the last four years, the inventory in that province is well advanced and there is every prospect of completing it within the five years set, but in Saskatchewan and Alberta there are such large areas for which the information is very meagre or altogether lacking that this may not be the case.

Aerial photography has been of the greatest assistance in these inventories, especially when used in conjunction with ground surveys. Maps are prepared from the photographs which not only give accurate topographical details, but show the waste land, merchantable timber, and young growth of the various types. With experience, the interpretation of aerial photographs is becoming much more efficient and it is confidently expected that with additional research along the lines started it will be possible by this means, supplemented by a minimum of ground cruising, to determine, within a reasonable degree of accuracy, the extent of the forest resources over areas in which intensive ground surveys would entail large expenditures of time and money.

As part of its co-operation with the provincial services the Dominion Forest Service is conducting a series of surveys in each province to determine the kind and amount of natural reproduction which is taking place after cutting and fire, and the rate at which this young timber is growing.

Information being obtained through this inventory will make it possible to devise forest policies adapted to the varying forest conditions throughout Canada which will ensure to the forest industries continuous and economical production.

FIRES AND FIRE PROTECTION

All inspectorates report a very hazardous fire season.

In Manitoba the 1929 season, which lasted until the second week of October, was the longest ever experienced, and the worst since the inauguration of organized fire-fighting. The snowfall during the winter of 1928-9 was light; there was practically no spring rainfall, and the prolonged warm weather of the summer was accompanied by high winds. The loss was comparatively light, except on the east side of lake Winnipeg. Aerial co-operation was hindered somewhat by weather conditions and shortage of equipment, and static interfered to some extent with the use of the radio. Aircraft equipped with skis were used during the late winter and early spring. The total time of flying during April and May, 1929 (under winter conditions) was 176 hours; between May and November, inclusive, a total of 2 607 hours flying was done.

In Saskatchewan the hazard was intense from early spring until late autumn, being even worse than it was during the preceding season. The causes were practically the same as those operating in Manitoba, namely, the dry season of 1928 followed by a winter in which there was little or no precipitation, and a very warm, dry summer with unusually high winds. The fire loss within the national forests was greater than it had been during the two preceding seasons. In the fire-ranging districts, many fires were difficult of access, and could only with difficulty be prevented from spreading. Co-operation with the Civil Government Air Operations staff continued good; a total of 930 hours flying was done. Thirty-seven ground fires were extinguished during the late winter.

In Alberta the fire risk reached its climax in the summer, from the latter part of July on, when the situation in the southern forests of the east slope of the Rockies was fully as bad as those of 1910 and 1919; the first week of September, however, brought relief. In the Cooking Lake national forest and the southern part of the Edmonton fire-ranging district the hazard continued excessive from May till December. In the earlier part of the season, practically no risk was experienced during April. In the latter half of May rains in that part of the province south of the North Saskatchewan river relieved the hazard in southern Alberta, though in the northern part of the province a very acute risk developed. Rains in the middle of June alleviated the hazard except in the Cooking Lake forest and the southern part of the Edmonton fire-ranging district. With the exception of the region just named, the fire risk during the autumn was below the average. Intensive air patrol was necessary on account of the long period of high fire-hazard and the unfinished condition of the lookout units in the Crowsnest and Bow River forests. A total of 1,078 hours of flying was required—644 from the High River base and 434 from the Grande Prairie sub-base.

In British Columbia the fire-hazard was abnormally high. The absence of snowfall and the early spring contributed to this result, though the risk was not out of the ordinary until the last part of July. During the two months succeeding, the conditions were very bad, but after September returned to normal. The very great majority of the fires were of comparatively small extent but three which could not be controlled, in spite of the most strenuous work, were

the cause of a large proportion of the season's fire loss. The railways caused most fires, but these were all small in area and were soon extinguished. Lightning was the second greatest cause of fires, and incendiarism, which came third, is still the cause of a serious number of fires (almost ten per cent).

In the tables that follow are given the fire-statistics for the 1929 season:—

Table No. 1

FIRES WITHIN AND OUTSIDE NATIONAL FORESTS: AREA BURNED OVER AND FIRE LOSS BY CAUSES

Causes	Manitoba			Saskatchewan			Alberta			British Columbia			Totals		
	No.	Area	Dam-	No.	Area	Dam-	No.	Area	Dam-	No.	Area	Dam-	No.	Area	Dam-
		acres	\$		acres	\$		acres	\$		acres	\$		acres	\$
Camp-fires.....	223	601,305	260,238	125	122,322	78,427	113	61,883	71,544	28	3,086	6,111	489	788,596	416,320
Smokers.....	55	11,130	6,615	33	9,774	848	34	4,001	2,330	60	3,227	24,327	182	28,132	34,120
Settlers.....	75	69,342	10,287	179	326,727	381,307	64	89,333	69,448	29	2,511	4,464	347	487,913	465,506
Railways.....	89	227,043	153,233	44	21,112	12,419	129	5,308	13,465	132	625	61	394	254,088	179,178
Lightning.....	79	2,164,624	245,275	18	72,090	110,688	8	589	4,028	127	26,546	215,862	232	2,263,849	575,853
Industrial operations....	3	36	4	28	90,018	96,686	5	7	.....	16	4,342	21,300	52	94,403	117,990
Incendiarism.....	64	38,690	17,054	61	50,773	41,084	14	20,943	4,912	45	3,511	19,299	184	113,917	82,349
Public works.....	8	64,625	23,177	1	1,840	1,440	7	5,233	2,270	5	804	1,875	21	72,577	28,782
Unclassified.....	3	6,341	9,191	8	13,772	14,240	1	1	500	4	161	60	16	20,200	23,991
Unknown.....	61	221,688	105,412	20	33,879	48,852	21	87,512	211,638	14	2,277	11,558	116	345,356	377,460
Total.....	660	3,404,824	830,486	517	742,307	785,991	396	274,810	380,135	460	47,090	304,917	2,033	4,469,031	2,301,529
Total cost of suppression....	.....	.....	150,989	.....	.....	112,570	.....	.....	60,591	.....	.....	69,642	.....	.....	393,792
Total fire loss.....	.....	.....	981,475	.....	.....	898,561	.....	.....	440,726	.....	.....	374,559	.....	.....	2,695,321

Table No. 1a

FIRES WITHIN AND OUTSIDE NATIONAL FORESTS: FOREST CONDITION OF BURNED-OVER AREAS, EXPENDITURE FOR FIRE-FIGHTING, ETC.

Province	Non-forested	Young growth	Cut-over land	Merchantable timber		Expenditure for fire fighting			Fires under jurisdiction Railway Board		
				Area	Value	Ranger Service	Other expenditure	Total	No.	Area burned	Loss
	acres	acres	acres	acres	\$	\$	\$	\$		acres	\$
Manitoba.....	2,898,696	219,257	21,366	265,505	406,480	6,937	144,052	150,989	43	1,242	200
Saskatchewan.....	334,466	261,730	24,100	122,011	276,849	9,092	103,479	112,570	23	15,305	10,536
Alberta.....	114,958	110,931	1,562	47,359	163,408	5,095	55,496	60,591	123	508	1,022
British Columbia (Railway Belt).....	5,474	11,804	7,630	22,182	234,496	5,303	64,338	69,641	96	503	163
Total.....	3,353,594	603,722	54,658	457,057	1,081,233	26,427	367,365	393,791	285	17,558	11,921

Table No. 2

FIRES WITHIN NATIONAL FORESTS: NUMBER AND AREA BURNED, BY CAUSES

Causes	Manitoba		Saskatchewan		Alberta		British Columbia		Totals	
	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area
		acres		acres		acres		acres		acres
Camp-fires.....	19	4,226	38	62,190	11	1,548	10	2,972	78	70,936
Smokers.....	10	2,843	6	1,446	12	72	13	995	41	5,356
Settlers.....	5	712	123	99,415	.....	.....	1	3	129	100,130
Railways.....	.....	.....	25	5,138	.....	.....	2	55	32	5,196
Lightning.....	2	803	2	1,065	5	4	15	2,584	24	4,456
Industrial operations.....	2	36	1	.....	5	1	.....	.....	6	37
Incendiarism.....	48	28,132	22	16,525	3	17,267	31	3,177	104	65,101
Public works.....	1	640	1	1,840	1	21	.....	.....	3	2,501
Unclassified.....	.....	.....	1	.....	1	.....	2	81	4	82
Unknown.....	9	4,029	8	3,680	4	61,341	1	2	22	69,052
Total.....	96	41,421	227	191,299	45	80,258	75	9,869	443	322,847

Table No. 3

FIRES OUTSIDE NATIONAL FORESTS: NUMBER AND AREA BURNED BY CAUSES

Causes	Manitoba		Saskatchewan		Alberta		British Columbia		Totals	
	Num-ber	Area	Num-ber	Area	Num-ber	Area	Num-ber	Area	Num-ber	Area
		acres		acres		acres		acres		acres
Camp-fires.....	204	597,079	87	60,132	102	60,335	18	114	411	717,660
Smokers.....	45	8,287	27	8,328	22	3,930	47	2,232	141	22,777
Settlers.....	70	68,630	56	227,312	64	89,333	28	2,508	218	387,783
Railways.....	89	227,043	19	15,974	124	5,305	130	570	362	248,892
Lightning.....	77	2,163,822	16	71,025	3	585	112	23,962	208	2,259,394
Industrial operations.....	1	.....	27	90,018	2	5	16	4,342	46	94,365
Incendiary.....	16	10,557	39	34,248	11	3,676	14	334	80	48,815
Public works.....	7	63,985	.....	.....	6	5,212	5	804	18	70,076
Unclassified.....	3	6,341	7	13,772	0	.....	2	80	12	20,118
Unknown.....	52	217,659	12	30,199	17	26,171	13	2,275	94	276,304
Total.....	564	3,363,403	290	551,008	351	194,552	385	37,221	1,590	4,146,184

Table No. 4

CLASSIFICATION BY SIZE OF FIRE

Province	Class A (under ½ acre)		Class B (½ acre and over, but under 10 acres)		Class C (10 acres to 500 acres)		Class D (over 500 acres)		Totals, 1929-1930		Totals, 1928-1929	
	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent by provinces	Total number of fires	Per cent Class A
Manitoba.....	35	5.3	150	22.7	257	38.9	218	33.0	660	32.6	380	17
Saskatchewan..	101	19.5	98	18.9	174	33.8	144	27.8	517	25.4	320	16
Alberta.....	137	34.6	94	23.7	105	26.5	60	15.2	396	19.4	396	14
British Colum- bia (Railway Belt).....	147	32.0	213	46.0	85	19.0	15	3.0	460	22.6	475	65
Totals....	420	20.0	555	26.0	621	32.0	437	22.0	2,033	100.0	1,571	30

Table No. 5

DISTRIBUTION BY MONTHS

Month	Manitoba		Saskatchewan		Alberta		British Columbia		Totals	
	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent
April, 1929.....	15	2.3	15	2.8	49	12.4	15	3	94	4.6
May.....	140	21.2	227	44.0	102	25.7	39	8	508	25.0
June.....	101	15.3	59	11.4	60	15.1	22	5	242	11.9
July.....	103	15.6	14	2.7	60	15.1	187	41	364	17.9
August.....	181	27.4	79	15.3	19	4.8	151	33	430	21.1
September.....	50	7.6	22	4.2	31	7.9	43	9	146	7.1
October.....	65	9.8	60	11.6	40	10.1	3	1	168	8.3
November.....	5	0.8	4	1.0	34	8.6	.....	.....	43	2.1
December.....	.....	.....	.....	.....	1	0.3	.....	.....	1	.....
January, 1930.....	.....	.....	6	1.0	.....	.....	.....	.....	6	0.3
February.....	.....	.....	16	3.1	.....	.....	.....	.....	16	0.8
March.....	.....	.....	15	2.9	.....	.....	.....	.....	15	0.7
Totals.....	660	100.0	517	100.0	396	100.0	460	100.0	2,033	100.0

DEPARTMENT OF THE INTERIOR

Table No. 6

STATEMENT OF THE AMOUNT OF TIMBER AND OTHER PROPERTY DESTROYED

Province	Salvable timber			Unsalvable timber			Damage to timber		Damage to young growth		Damage to other property		Total damage
	Saw-timber	Other	De-precia-tion	Saw-timber	Other	Damage							
	Ft. b.m.	cords	\$	Ft. b.m.	cords	\$	\$	%	\$	%	\$	%	\$
Manitoba....	493	53,940	14,422	44,318	855,867	384,998	399,420	48.1	409,073	49.3	21,993	2.6	830,486
Saskatchewan....	20,755	355,073	80,365	10,426	511,594	196,482	276,847	35.2	490,998	62.5	18,146	2.3	785,991
Alberta.....	16,453	1,302	15,862	64,786	96,570	147,546	163,408	42.9	212,959	56.1	3,768	1.0	380,135
Br. Columbia (Dominion Lands).....	3,384	37,442	10,555	112,484	49,500	242,941	253,496	83.2	21,248	6.9	30,173	9.9	304,917
Totals...	41,085	447,757	121,204	232,014	1,513,531	971,967	1,093,171	47.4	1,134,278	49.4	74,080	3.2	2,301,529

Table No. 7

STATEMENT OF DOMINION LANDS BURNED OVER, SHOWING OWNERSHIP AND FOREST CONDITIONS

Province	Total area burned over	Ownership				Forest conditions							
		Public		Private		Merchant-able timber		Partially cut-over		Young growth		Not forested	
		acres	%	acres	%	acres	%	acres	%	acres	%	acres	%
Manitoba.....	3,404,824	3,387,513	99.5	17,311	0.5	265,505	7.7	21,366	0.6	219,257	6.4	2,898,696	85.3
Saskatchewan.....	742,307	600,757	80.8	141,550	19.2	122,011	16.4	24,100	3.2	261,730	35.2	334,466	45.2
Alberta.....	274,810	262,155	95.4	12,655	4.6	47,359	17.2	1,562	0.5	110,931	40.4	114,958	41.9
British Columbia (Railway Belt).....	47,090	41,884	88.9	5,206	11.1	22,182	47.1	7,630	16.2	11,804	25.1	5,474	11.6
Totals.....	4,469,031	4,292,309	96.1	176,722	3.9	457,057	10.2	54,658	1.2	603,722	13.5	3,353,594	75.1

FIRE-HAZARD STUDIES

As in previous years, weather records were taken throughout the fire season at a number of selected stations in forest areas in the Prairie Provinces and the Railway Belt of British Columbia. The data obtained at these stations proved of material value to fire-protective organizations in the direction of fire patrols and suppression work.

In addition to the foregoing, fire-hazard research studies were continued at the Petawawa forest experiment station at Chalk River, Ontario, with the object of studying the degree of inflammability of forest-fire fuels (the materials on the forest floor in which fires start or spread) under varying conditions of moisture content. As a result of this work, it is now definitely known precisely what effect a given set of weather conditions has upon the inflammability of the forest fuels in the white pine and red pine type. The information thus obtained proved of great value in accurately determining the condition of inflammability of the forest each day and was useful in detailing the work of the men so that they would be immediately available in the event of a fire being reported. It was also used in determining the necessity of keeping men on duty on Sundays, the number of men necessary to send to a fire, and in posting warnings at the entrance to the forest reserve for the guidance of visitors in the use of fire.

The procedure consisted in establishing five zones of inflammability for mixed red and white pine forest ranging from nil to extreme, depending upon the moisture content of the fuels. The behaviour of fires in each zone was

identified. The rates of change of moisture content and consequently the inflammability, under varying conditions of rainfall, wind velocity, relative humidity of the air, temperature, and evaporation, were determined for the mixed red and white pine forest in the climatic area of the Petawawa forest experiment station.

IMPROVEMENTS

Hereunder is a list of the principal improvements made during the year:—

	Number		Miles
Ranger house.....	1	Telephone lines.....	154
Ranger cabins.....	21	Roads.....	49
Stables.....	5	Trails.....	200
Warehouses.....	2	Fireguards (ploughed).....	339
Garages.....	2	Fireguards (cleared).....	107
Barns.....	5		
Machine sheds.....	2		
Lookout cabins.....	2		
Lookout towers.....	4		
Bridges.....	6		
Summer-resort pier.....	1		
Golf course.....	1		
Fences.....	5		
Cableway.....	1		
Nursery water systems.....	4		
Other buildings.....	13		

HAY AND GRAZING

In Manitoba the grazing situation improved somewhat, and the demand for hay was keen owing to the poor hay crop brought about by the dry weather. Practically all the hay meadows in the national forests were cut over.

In Saskatchewan there was a decided increase in the number of hay permits issued, the dry weather permitting the cutting of hay meadows usually flooded. Grazing, however, is decreasing owing to the fact that the farmers are more and more inclined to engage in mixed farming and raise their own forage crops. In Alberta more sheep but fewer cattle and horses were grazed.

In British Columbia weather conditions (in particular the small snowfall of the preceding winter, 1928-29) were unfavourable for grazing. With the idea of encouraging stockmen to use the higher ranges, several trails were constructed, and other improvements made.

TIMBER SALES AND PERMITS

In Manitoba five timber sales were carried on. The number of timber permits was slightly smaller and practically all of them were in the Riding Mountain, Duck Mountain, and Porcupine forests.

In Saskatchewan there was a slight increase in timber sales and permits. Thirty-two new sales (twenty-six "Supervisor's," five "Inspector's," and one "Director's") were awarded. There was a brisk demand for timber permits, especially on the prairie reserves. Very little pulpwood was cut. Owing to the dry season, great care was required in supervising brush-burning operations but practically all the brush was burned.

In Alberta ten new sales were awarded during the year and thirteen sales were closed out. The total cut was slightly less than last year's total, but is above the five-year average. The number of permits issued was 673. There was an increase in the quantities of fence-posts, fence-rails, poles and fuelwood. The cut of sawlogs was stationary and there was a decrease in the cut of mining timber and thinnings.

In British Columbia the season was very active in regard to timber sales, nineteen new sales being awarded. The greatest demand was for poles and piling; the demand for sawlogs was small and only a few ties were cut. Sale conditions were well complied with.

REFORESTATION

In Manitoba 47,500 trees were set out on the Riding Mountain forest, but no seeding was done. Sprinkling systems worked satisfactorily at all the nurseries and a total of 2,429,400 young trees is on hand.

In Saskatchewan 46,000 trees (14,000 white spruce and 32,000 jack pine) were set out on the Dundurn, Nisbet-Pines, and Big River forests. The excessive mortality of jack pine planted in the autumn of 1928 showed that fall planting of jack pine was not a success. In the nurseries growth was hindered by dry weather. The number of seedlings on hand is 5,435,397, and the number of transplants 749,672. A detailed nursery cost system was introduced in 1928, and it is found that the cost of seedlings is on a par with similar nursery stock in the United States, but the cost of transplants is excessive.

In Alberta 50 acres of spruce and 25 acres of lodgepole pine were planted in the Cooking Lake forest. There has been much damage from rabbits and a rabbit-proof fence has been erected around the area planted to pine. Older plantations are doing well. For planting in 1930 there are on hand 180,000 spruce and pine seedlings and 10,000 transplants.

RECREATION

In Manitoba the number of visitors at the summer resorts in the national forests showed a marked increase; the estimated daily total number of visitors at all these resorts amounted to 1,400. Improvements made include the clearing of four acres of land at Benito Beach and two acres at Kamsack Beach, the construction of a promenade along the lake at the latter resort, and the laying out of two additional tennis courts, a pier, and a bath-house. At the Clark Beach (Riding Mountain) resort a nine-hole golf course was constructed and throughout all the summer resorts much road-improvement work was done.

In Saskatchewan the resorts continue to be popular, especially at Fish lake (Moose Mountain), where fifty additional lots were laid out in the Sandy Bay subdivision. Fishing permits issued in this forest showed a substantial increase in number.

In Alberta the Elkwater Lake resort, the only one in this inspectorate, has a steadily increasing number of visitors, and the camping grounds in the mountains continue popular in summer and autumn.

In British Columbia both the Paul Lake and the Fish Lake resorts continue popular, though no great demand has been experienced for camp or cottage lots. Attention is being given to camping sites along the automobile highways in the national forests. The ditch connecting Walloper lake and Fish lake has been found useful in providing spawning grounds for the trout and raising the level of Fish lake.

SURVEYS

In Manitoba the surveys of pulpwood resources were continued by three parties, two in the Nelson River drainage area and one in the Saskatchewan River drainage area. A total of about 4,262,000 acres was covered, of which 1,562,000 acres were in the Nelson area and 2,700,000 acres in the Saskatchewan area.

In Saskatchewan three 4-man crews were engaged in an inventory survey in the Pasquia forest. Though their work was interrupted by fire, they succeeded in covering 128,000 acres. During the winter a 2-man party cruised 9,406 acres in the Fort à la Corne forest.

In Saskatchewan, on account of heavy demands from prospective settlers for the opening of lands in national forests and proposed additions thereto,

examinations were made of these lands and 66½ sections were withdrawn from the forests; five townships were also withdrawn as the result of examination by officers of the Department.

MANITOBA FOREST INVENTORY

Preliminary work was done in the matter of making a forest inventory of Manitoba, consisting of a general tour of the settled portions of the province, preparation of a plan for future work, special subdivision of the province into districts, compilation of the 1927 cruise of the pulpwood area and a set of maps of the 1928 and 1929 fires, and compilation of data on land tenure. The Bureau of Statistics co-operated in the preparation of a list of sawmills.

SEED COLLECTION AND EXTRACTION

In Manitoba there was a heavy crop of Manitoba maple seed, and 3,058 pounds were collected at Dauphin and sent to Indian Head, Saskatchewan, for extraction.

In Saskatchewan 128 bushels of jack pine cones and 125 bushels of white spruce cones were collected, yielding, respectively, 58 and 86 pounds of seed. The cost of the jack pine seed was higher than usual, but the white spruce seed cost little more than half that extracted in 1927. Ten pounds of balsam fir seed were also procured.

In Alberta the crop of spruce and balsam fir cones was very poor and collection was not feasible; 200 pounds of lodgepole pine seed were extracted from cones collected in previous years.

The demand for British Columbia seed continued, and two and one-quarter tons of seed were sent to the British Forestry Commission. Large orders from the Irish Free State, New Zealand, and Australia were also filled, and Norway, Sweden, Finland, Denmark, Spain, and Russia were sent small lots. Although the crop of coast Douglas fir seed was a failure and that of lowland fir was not satisfactory, the crops of other varieties of seed were some of the best on record, especially Sitka spruce, the season's yield of this seed being the best since this Service started the work of seed collecting. All picking was done by contract. The total quantity of seed extracted amounted to five and a quarter tons—the yield of about thirteen carloads of cones. The quality of seed was unusually good, as high as 96 per cent germination being obtained in one shipment of yellow pine seed.

TREE PLANTING ON PRAIRIE FARMS

Exceptional weather conditions owing to drought, heat, and extensive wind-storms made the season of 1929 the most unfavourable experienced by the Tree Planting Division since the beginning of its work. Following upon a winter of light snowfall, conditions were fairly good during the spring, but during the remainder of the season there was an almost complete lack of precipitation. Abnormal temperatures in January and February led to an unusual amount of winter-killing; of all the species ash was the least affected. Lighter soils suffered less than the heavier clay soils. Established evergreens came through in good condition and broad-leaved rooted stock sustained little loss; cutting stock, however, suffered very heavily. Of the plantations two years old and over, 81½ per cent were rated good, 15½ per cent fair, and only 3 per cent poor. Owing to the drought the growth was somewhat less than usual. Field shelter-belts are increasing in number, and their benefits are being perceived. In at least one case reported a field shelter-belt about four feet high saved the crop on the sheltered side when the crop on the exposed side was a complete failure. Observations of mulching show this practice faulty. Mulching

increases the fire risk, but a cultivated strip acts as a fireguard and also adds to the area from which trees can draw moisture in case of drought. Greater interest is everywhere reported in ornamental trees, shrubs, flowers, lawns, and fruit trees. A total of 8,673,650 broad-leaved seedlings (approximately half from each of the Indian Head and Sutherland nurseries) was sent out to 6,486 applicants, and 138,700 transplants of pine and spruce were sent to 966 applicants, in addition to which 118,000 trees were sent to the Spruce Woods forest for planting there. The broad-leaved nursery stock is smaller than usual but well rooted. The evergreen seed-beds have come through very satisfactorily owing to artificial watering.

Much attention was given to the research work at the Indian Head station. A start was made in obtaining complete plotting and measurement records in all the permanent plantations at Indian Head. Eighteen plantations whose areas totalled 31.72 acres were surveyed, every tree being measured and plotted. Some of these were also marked for thinning. Observations were made in a number of cases of the results of mixing different species. A mixture of ash and Scotch pine proved almost ideal under the conditions obtaining at the nursery. Mixtures of Manitoba maple with other species were generally beneficial, though in some cases the maple did harm by shading and mechanical damage. A mixture of caragana and white spruce has proved detrimental to the spruce, and jack pine has also suffered badly from its mixture with caragana. In the mixtures of caragana with lodgepole pine and with Colorado spruce, damage done by the caragana has not been so evident.

A number of "variety" plots were also measured for diameter and height, and some of them were thinned. Many height measurements were made in both plantations and "variety" plots. The trial of exotics was continued; in the nursery rows there are now 1,772 plants of 71 species of these and the transplant beds include 941 plants of 36 species. Studies of the effect on grain crops of a field-shelter were carried out at a farm in the vicinity of Indian Head. In the case of oats and barley very striking benefits were noted to a distance of 65 or 75 feet from the shelterbelt, and in that of wheat to about the same distance.

The study of poplar canker was continued. Two types of this disease were found, one of which injures the young cuttings in the nursery, the other appearing on older plantations. Clean cuttings planted in clean ground were found to give trees free from the disease. A fungus was discovered which seems to be the cause of the disease, which has been proved to live over winter in the cuttings and to continue growth next spring after planting. In a typical lot of cuttings taken from the ordinary run of stock sent out from the nursery, over 40 per cent failed to survive. Ocular inspection is sufficient to select clean cuttings, which must be planted in clean ground. The other form of canker—that which affects the adult trees—is perpetuated by a fungus which is comparatively well known, but the fungus which originates the disease is not yet known. Further investigation of this disease is being carried on. A study of "damping off" is being carried on in coniferous seed-beds.

A mimeographed circular describing a simple and practical method of preservative treatment for fence-posts was issued in response to many inquiries received from the farmers throughout the Prairie Provinces, great interest having been aroused from the fact that the first lot of Russian poplar posts creosoted in 1916 are now, after thirteen seasons in the ground, apparently in as good condition as when originally set out.

Tests of apples and plums grown under the protection of shelter-belts were continued at Indian Head, and a variety of gooseberry similar to the English gooseberry and much larger and of better quality than the kinds usually grown on the prairies holds out great promise. Tests of apples and plums are also being carried on at Sutherland.

FOREST PRODUCTS LABORATORIES OF CANADA

Since the reorganization of the laboratories at Ottawa and Montreal has been completed and these laboratories have become well established in their new quarters, all three laboratories have made satisfactory progress. The past year was one of exceptional activity. Increasing interest in the work of the laboratories has been manifested by the wood-using industries, a fact which provides an important incentive to the staffs of the laboratories.

OTTAWA LABORATORY

The Ottawa Laboratory is now organized under the divisions of wood preservation, timber mechanics, timber physics, timber pathology, wood utilization, lumber seasoning, markets and exhibits, and office administration.

Division of Wood Preservation.—Tests were begun of a new preservative known as zinc-meta-arsenite. Eleven hundred ties were provided by the Canadian National Railways and treated by the Laboratory, and are being installed in the track, where they will be kept under observation; tests were also made as to permanency of this preservative under leaching conditions, corrosive effect on metals, and toxicity to fungi. The Canadian Pacific Railway provided 1,220 ties, and tests made on these, after being air-seasoned and creosoted, proved that incising prior to air-seasoning slightly reduces checking in ties seasoned from four to five months but has no appreciable effect on the rate of air-seasoning or on the absorption of preservative as compared with ties incised after air-seasoning. Incidentally to this work it was found that yellow birch ties should be treated separately from maple and beech ties, though ties of these latter two species may be seasoned together. Studies in the distribution, penetration, and permanency in wood of dinitrophenol (a constituent of Wolman salts), a preservative much used in several countries, are in progress, as is also work on the use of sodium chloride (common salt) as a wood preservative under certain conditions. Work on the protection of timber from marine borers is still being carried on.

Division of Timber Mechanics.—A new project being taken up in this division is the testing of glues for the purpose of developing glue standards. Further study of the strength of wooden containers is being carried on, and a survey of packing methods and materials used by leading manufacturers of western and southwestern Ontario has been completed. A study of the relation between rate of growth and crushing strength and between density and crushing strength was carried on. This division and the division of timber pathology are co-operating in investigation of the strength of jack pine as influenced by *Trametes Pini* and a second fungus that causes red stain in jack pine. A series of tests (4,326 in all) was carried on with Eastern cedar, red pine, and jack pine in order to ascertain the suitability of the pines for use as telephone poles. Tests on clear specimens of Canadian woods and on the nail-holding power of Canadian woods were continued. Strength tests of treated and untreated Douglas fir beams showed that though, generally speaking, some decrease in strength was shown after treatment the decrease was not sufficient to limit their usefulness or serviceability from a commercial standpoint. A number of minor investigations were made. A total of 15,430 tests was made during the year under various projects, and 2,159 tests in response to inquiries from wood-using industries.

Division of Lumber Seasoning.—Kiln-drying tests on white pine point to the development of a method of avoiding brown-stain in drying. Plans were drawn up for a lumber-seasoning survey in lumber-manufacturing and wood-

working plants in Quebec and the Maritime Provinces. Investigation of the absorption of moisture in rail transportation of kiln-dried stock from British Columbia to Eastern Canada was made in co-operation with the Vancouver laboratory.

Division of Timber Physics.—Several studies of timber flotation were carried on. Reports were made to the Woodlands Section of the Pulp and Paper Association, at their request, on the Laboratory's investigations regarding the decrease of floatability in logs which had been soaked in water in a tank for almost a year, and on the effect of agitation on the rate of absorption of water by logs. The effect of water temperatures on the sinkage of wood in fresh water was investigated, the result being that no apparent difference was found in the rate of sinkage of logs where the water remains either cold or warm, but that the rate of sinkage seems to be faster in logs which are subject to varying water temperatures. The collection of microscopic preparations of Canadian woods was extended, and many wood identifications made. Microscopic preparations of Canadian woods were sent to three Canadian universities and one technical school. An investigation of electrical resistance in wood was initiated, and a number of minor investigations carried out.

Division of Timber Pathology.—Blue-stain in lumber, particularly white pine, was investigated in several aspects. A study of the general conditions under which blue-stain occurs and of means of preventing it was made, and a short circular published on this subject. A systematic study of blue-stain fungi was begun and tests made of twelve selected toxic chemicals to determine which of them will control blue-stain. Brown-heart in birch is also being investigated. In response to a request, mora, a heavy South American hardwood which has been suggested for use as railway ties, was tested and found apparently durable. The reference collection of pathological material was extended and study of the development of red-stain in jack pine ties under service conditions was continued.

Division of Wood Utilization.—This division was engaged on another aspect of the log-flotation question, namely, the effect of seasoning on the floatability of logs, a report on which was made at the 1930 meeting of the Woodlands Section of the Pulp and Paper Association. An official report on the relationship between rate of growth and density in spruce was drafted. Plans were prepared for a systematic study of sawmill waste in eastern Canada, and co-operation was given to the Forest Protection division of the Forest Service in the study of the factors affecting the inflammability of forest fuels.

Division of Markets and Exhibits.—The demand for sets of specimens of the principal commercial woods of Canada continues, and ninety-six sets were sent out during the year. Exhibits were prepared for the National Museum at Ottawa, for nineteen Canadian trade commissioners stationed at various points all over the world, for the Imperial Institute at London, England, and for the International Exhibition at Antwerp, Belgium. The laboratories also participated in exhibits at the Toronto Builders Exhibition and the Quebec Provincial Exhibition of Natural Resources, and had displays in the Royal York Hotel, Toronto, and the Buffalo and Detroit offices of the Department of Immigration and Colonization. A number of magazine articles were written and tests made by members of the staff relating to the work of the Laboratories.

VANCOUVER LABORATORY

Requests for technical information increased by ten per cent; several of these were important and led to special investigations.

Division of Timber Mechanics.—Tests to determine the effects of incising and creosoting on the strength of Douglas fir ties were completed and a report made. Work was continued on the testing of clear specimens of Western woods, the effect of variable moisture contents on the strength of wood, the deterioration of black cottonwood logs in fresh-water storage, and the retention of nails and screws in wood. A request was received from the Fisheries Experiment Station for further co-operation in the testing of glues made from fish waste. Many custom tests of various construction materials were also carried out.

Division of Timber Products.—An investigation of the absorption of moisture by timber shipped, respectively, by water and by rail was made co-operatively with the Ottawa Laboratory and the Forest Products Research Laboratory at Princes Risborough, England. These indicate that kiln-dried lumber shipped by rail will reach its destination in satisfactory condition, but such material will for some uses require re-conditioning on arrival in England. Air-seasoning studies on Engelmann spruce were made at mills in the Interior region. Efficient drying schedules were developed for the seasoning of Western red cedar, yellow cypress, and alder. Studies of the shrinkage of commercial sizes of cedar were made and as a result of a study of the "cupping" and loosened knots in Engelmann spruce definite recommendations were made to a co-operating mill with a view to improving their kiln practice. The effect on durability and serviceability of various temperatures in drying shingles was studied. Eighty-nine per cent of coast mills having dry kilns were included in a survey made to determine variation in moisture content of kiln-dried lumber at the time of shipment and the effect of moisture content on machining. A series of studies at four coast mills shows that considerable improvement has been made in kiln-drying practice since the first studies in 1925. Twenty-one students attended the third annual six-day kiln-drying course. A marked improvement in seasoning practice was reported by the British Columbia Lumber and Shingle Manufacturers' Association. Loosened grain in kiln-dried Douglas fir, "collapse" in kiln-dried shingles, and the effect of different methods of lumber-piling on the rate and uniformity of drying were continued, and a study made of the effect on the yield of seed of different combinations of temperature and humidity in extracting lodgepole pine seeds. Mill-waste studies have shown that 67 per cent of the volume of the log is recovered as lumber. Studies in log waste were also commenced. Studies of the effect of kiln-drying on the sterilization of lumber and the effect of purple stain on the properties of Douglas fir and Western red cedar were begun, and a study of the development of stain in overseas shipments was continued.

Several articles by laboratory officers were published in lumber and engineering journals, and twenty-five lectures on technical subjects were given to lumbermen's organizations and educational institutions.

In co-operation with the British Columbia Lumber and Shingle Manufacturers' Association, Limited, an exhibit of British Columbia forest products was prepared for the Antwerp Exhibition, and, in co-operation with the British Columbia Forest Service, material for an exhibit of British Columbia products was prepared for the Crystal Palace, London, England. Exhibits were also made at the Vancouver Exhibition (in co-operation with the Canadian Forestry Association), at the West Coast Lumbermen's Association at Tacoma, Washington, and in a number of other cases.

PULP AND PAPER LABORATORY (MONTREAL)

Very satisfactory progress has been made by the laboratories during the year in formulating a program of work, in obtaining competent personnel to engineer such a program, and in getting various projects well organized. The program of work and activities of the Laboratory are under the general adminis-

tration of a committee composed of representatives of the Forest Service and of the pulp and paper industry. The new program was developed in close co-operation with the industry through several committees of the Technical Section of the Pulp and Paper Association. Practically all the former projects were included, and a number of progress reports from these were included in Volume 2 of "Research Notes." A manual of pulp testing is being compiled for the use of laboratory workers. Investigative work is being done on the adaptation of alkaline pulps to the manufacture of artificial silk, as a result of which it now seems that it will be possible to produce alkaline pulps suitable in all ways for artificial silk production. The manufacture of sulphite pulp is being studied with special reference to the quality of pulp made from different species and by different processes, full tests being made of the products. Investigation is being made of the qualities of pulp as they affect the qualities of the paper made from it; this investigation consists largely of the development of new methods of testing and the substantiation of such methods. Chemical pulping depends on the action of certain reagents in dissolving the non-cellulose materials of the wood and the laboratory has undertaken a thorough study of the factors and conditions covering the penetration of cooking liquors into wood, for instance, the conditions which bring about the gradual weakening of the cooking liquor. In connection with the study of the whole question of bleaching, apparatus has been designed and constructed for the correct estimation of hydrogen-ion concentration in oxidizing solutions, and of the circulation of bleaching liquor through pulp. A systematic study of the ground-wood process is being undertaken under the headings: (1) Definition of ground-wood quality, (2) Definition of stone quality and stone surface, (3) Study of the factors of operation, (4) Study of machine design, auxiliary appliances, and related methods of procedure.

SILVICULTURAL RESEARCH

The first field-work in connection with the Canada-wide study of the rate of growth of forests in their various conditions was commenced this year. It is proposed to determine the average current rate of growth of each tree species in each age-class and in each timber type. Particular attention will be given to young timber, the potential forests. Four field parties of eight men each commenced work on this problem in May and continued until October. These parties were located in Nova Scotia, New Brunswick, Quebec, and Ontario. By the end of the fiscal year the data were compiled and summarized in preparation for the interim report.

An additional research party in Quebec was engaged in remeasuring the numerous permanent sample plots that have been established at the several stations—Lac Tremblant, Lake Edward, and Lake Kenogami—from time to time during the past ten years. The results of the first remeasurement, and, in some instances, of the second remeasurement are now available.

Dual activities, research and administration, were conducted at the Petawawa experiment station. Research was concentrated on remeasurement of sample plots in connection with several experimental cutting areas, and with surveying an area for a demonstration woodlot to be managed on a working-plan basis. Considerable advancement has been made in the development of a fire-weather station at Petawawa. The season being exceptionally dry, the collection of most interesting and valuable data was made possible. It was a busy season for the administrative staff. Over a dozen fires started, but prompt action and continuous fighting kept them under control so that loss of timber was very slight. The organization, from detection to suppression, was strong; otherwise much valuable timber and many investigative projects would have been destroyed.

Further progress has been made with the study of type classification based on the distribution and association of floristic species of ground cover. The information collected by a field party in Alberta during the summer of 1929 indicates that some four or five definite types or sites can be recognized by the grouping of certain characteristic floral species.

The bulletin, *Form-class Volume Tables*, now issued, presents in concise form information invaluable to those, from coast to coast, concerned with forest products.

PUBLICITY

As it was felt that the annual forest-week campaign which had been staged each spring for several years had outlived its usefulness, this method of fire prevention was discontinued in 1929. The newspaper-advertising campaign, previously an integral part of the forest-week campaign, was however, maintained as a separate venture and showed uniform success. Advertisements appeared under this plan in all dailies, weeklies, farm periodicals, and foreign-language and financial papers over the period from May to September.

In June, July, and August, four different lecturers were in the field, visiting boys' and girls' vacation camps. In all 32 camps and 3,013 campers were visited.

A representative of the Service again supervised the forestry exhibits at the Class A fairs in Western Canada. Following the success of the log cabins erected by this Service on the fair grounds at Calgary and Edmonton, similar structures were erected on the fair grounds at Saskatoon and Brandon; the latter is a particularly fine example of log building, and has come in for considerable commendation and admiration. In addition to these exhibits at Class A fairs, booths were established by local officers at twelve of the smaller fairs and exhibitions in the Prairie Provinces and British Columbia.

The course of forestry lectures at Dauphin normal school was carried on as usual. Routine publicity materials—calendars, posters, pamphlets, novelties for distribution at fairs, and similar items—were designed and distributed throughout the year. The district inspectors report a steadily increasing interest in forestry problems, stimulated by the publicity work of the Service.

PUBLICATIONS

The most important publication issued during the year was the book of *Form-class Volume Tables* for red, white, and black spruce; red, white, jack and lodgepole pine; and balsam fir. This embodies the results of several years' work by the Research division of the Service. These tables will prove of great service to foresters and executives of large lumbering and pulp companies in computing the quantities of wood to be obtained from different stands of timber, and a large demand has already been experienced for them. The format is designed to make the book of service in the field as well as in the office. The book includes 170 volume tables showing the volume of wood to be obtained from trees of specified diameters and heights, and a number of other tables of value to foresters and timber estimators. Two new circulars were issued, namely, No. 27, *Creosote Treatment of Douglas Fir*, and No. 28, *Stain and Decay in Lumber-seasoning Yards*. Forestry Topic No. 6, *The Christmas Tree Trade in Canada*, was also issued during the year.

REVENUE

The revenue from all sources during the fiscal year showed a net decrease of \$33,591.28. With the exception of the fiscal year 1926-7, the revenue was

less than that of any year in the five-year period 1924-5 to 1928-9 and about \$18,000 below the average. The decrease was due mainly to lessened receipts of \$24,170.44 in timber sales and \$10,298.51 in miscellaneous receipts.

The decrease in timber-sale revenue is due mainly to the drop in receipts from the Pasquia forest, Saskatchewan, which amounts to \$36,596.80. Although the number of active sales was greater than the previous year, "Supervisor's" sales predominated, and, while this class of sale evidently fills a long-felt want, the volume of timber thus sold was below that included in "District Office" or "Head Office" sales of previous years, as partly indicated by the decrease in revenue. A substantial increase in the revenue from timber sales in the Big River forest, Saskatchewan, somewhat offsets the net decrease in Saskatchewan. Active timber sales show an increase of 16, with "Supervisor's" sales predominating.

The revenues from fishing and nursery stock show slight increases and that from tree seed is increased by \$4,936.16. Grazing fell off somewhat in Alberta, but shows increases in the other provinces, leaving a net decrease of \$689.01. Owing to the continued dry weather the demand for hay was unusually heavy, resulting in an increase of \$1,009.17. The increased demand for summer-resort privileges is also indicated in the increase of \$1,005.95 in surface rentals.

The kinds and total quantities of timber authorized to be cut from all reserves, the revenue of which is shown under the heading of "Timber Permits" in the statement of revenue, were as follows:—

Fuel-wood (cords).....	25,161
Fence posts, rails, and piling (number).....	338,070
Fence posts, rails, and piling (linear feet).....	15,060
Telephone poles (linear feet).....	1,670
Railway ties (number).....	770,201
Saw-timber (feet board measure).....	7,568,961
Mining timber (linear feet).....	498,760
Mining ties (number).....	500
Building logs (number).....	21,287
Building logs (linear feet).....	131,723
Miscellaneous (cords).....	1,666
Miscellaneous (number).....	215

Sixty-two new timber sales were awarded during the fiscal year. The dues payable amounted to \$99,050.26, and \$110,519.19 including arrears was collected.

The kinds and amounts of material cut and scaled on national forests in connection with timber sales are shown in the following statement:—

Number of active sales.....	166
Sawlogs (feet board measure).....	21,804,842
Mine timber—	
Lagging (linear feet).....	115,627
Other kinds (linear feet).....	718,016
Railway ties hewn (number).....	29,014
Telephone poles (linear feet).....	887,487
Fence-posts, rails, and droppers (number).....	18,683
Fuel-wood (cords).....	1,364½
Pulpwood (cords).....	1,105
Boxwood (cords).....	3,905
Piling (linear feet).....	24,767
Mine props (feet board measure).....	477,216
Mine ties (number).....	8,395

National Forest	Number of timber sales operating	Other Sources of Revenue												Total revenue all sources										
		Revenue from timber sales		Revenue from permits, etc.		Number of grazing permits		Revenue from grazing permits		Hay permits and seizures		Surface rentals			Special uses		Tree seed		Miscellaneous including fishing		Casual revenue		House rent	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Duck Mountain.....	3	1,209 81	299	2,463 23	17	183 80	388 25	566 35	62 00		36 00	0 70											4,909 94	
Porcupine No. 1.....	4	1,441 18	89	1,453 37	2	2 00	794 00	1,744 57	27 00		164 00												2,116 55	
Riding Mountain.....	1	3,553 25	1,187	10,417 08	17	160 40	784 84	1,744 57	145 00		239 70												17,014 84	
Sandilands.....	3	1,901 19	13	203 20					4 00														2,108 39	
Spruce Woods.....	10	22 50		22 50			40 25																62 75	
Turtle Mountain.....	16	55 25		55 25	34	331 00	178 75	72 60	16 00		50 00												847 60	
Manitoba Total.....	11	7,105 43	1,614	14,614 63	69	677 00	1,391 09	2,383 52	254 00		489 70	0 70	144 00										27,060 07	
Beaver Hills.....			28	109 50	18	79 79	314 25		2 00														505 54	
Big River.....			76	388 32	2	31 52	163 75		28 50														13,170 08	
Dundurn.....	2	12,269 99	22	34 00	5	155 68	80 00	1 00	7 00														272 68	
Elbow.....			269	615 25	156	917 50	26 00	1 00	227 20														1,840 95	
Fort à la Corne.....	7	936 82	239	2,372 59	1	2 76	34 75	27 00	21 00														3,604 92	
Keppel.....			6	41 50	51	362 28			6 00														409 78	
Manito.....			79	232 50	94	1,549 48	41 50	115 30	47 00			18 53											2,024 31	
Moose Mountain.....	1	19 43	169	232 50	22	189 97	223 33	275 48	31 00		881 00	15 00	144 00										2,489 56	
Nisbet-Pines.....	8	981 60	242	1,347 05	20	284 47	212 25	5 00	869 88														3,700 31	
Pasquia.....	36	25 818 72	88	2,617 52	2	23 42	220 25	8 00	59 00														29,034 91	
Porcupine No. 2.....	13	2,778 61	293	1,979 61	6	70 78	433 25	140 00	206 00														5,608 25	
Seward.....					29	713 44	52 50		26 00														791 94	
Saskatchewan Total.....	67	42,805 23	1,531	10,518 19	406	4,381 09	1,801 83	571 78	1,530 58		881 00	33 53	930 00										63,453 23	
Athabasca.....			3	43 40		82 28	7 25		35 00		94 00		84 00										345 93	
Bow River.....	2	4,925 06	43	539 28	7	4,264 02	17 00	1 25	51 25		634 25	32 81											9,853 57	
Brazeau.....	12	6,765 53	32	1,555 66	84	306 50		1,536 56	26 00		298 62		144 00										10,968 52	
Clearwater.....	4	9,140 28	12	290 88	39	303 56	4 75	573 78	14 19			30 80											10,656 86	
Cooking Lake.....			6	17 00	63	469 38	153 75		3 00				144 00										787 03	
Crowsnest.....	7	2,216 15	131	5,042 41	140	5,995 26		339 06	306 25		137 00												14,036 13	
Cypress Hills.....	1		494	2,363 76	92	1,952 19	6 50	65 15	127 83		9 00		144 00										4,661 93	
Lesser Slave.....	6	9,419 50							10 00		39 75		144 00											9,619 75
Alberta Total.....	32	32,467 44	681	9,852 39	492	13,373 09	189 25	2,515 80	573 52		1,234 62	63 61	660 00										60,929 72	
British Columbia Reserves																								38,658 25
Indian Head Nursery.....	54	22,684 71	23	230 28	91	1,606 10	41 25	297 80	201 67	13,310 60	190 61	95 23											6,245 95	
Forest Products Laboratories											5,014 95	34 00	1,200 00											6,245 95
Sundries.....											67 80													67 80
Head Office (Petaawana)	2	5,456 38									574 05	1,420 00												2,006 05
Grand Total.....	166	10,519 19	3,853	35,489 49																				5,721 38
Refunds.....				1,227 17																				9,177 40
Net revenue.....				34,262 32	1,958	20,037 28	3,307 92	5,768 90	2,559 77	13,322 60	8,434 73	1,647 07	2,934 00	204,145 45										194,965 05

IV

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

GENERAL

The year 1929-30 was one of activity and expansion in the work of the National Parks of Canada. Two new areas were investigated and added to the national parks system. The first of these included twenty-nine island reservations in the Georgian Bay district of Ontario. Some years ago officers of the National Parks Branch had pointed out the rapidity with which this beautiful region was being taken up by summer residents, with the result that there would soon be no places to which the general public could have free access for camping, bathing, or picnicking. An examination of unalienated islands, title to which still remained in the hands of the Department of Indian Affairs in trusteeship for the Ojibway tribe, was made by National Parks officers. Later by arrangement with the Department of Indian Affairs, a number of suitable islands were reserved, and last year twenty-nine were acquired and set aside as the Georgian Bay Islands park. Beausoleil island, the largest of the group—in fact the only remaining large island not taken up in the entire region—is well suited to become a public resort. It covers nearly five square miles and presents a good example of the characteristic scenery of this picturesque part of Ontario. Beautiful groves and bathing beaches of white sand make it attractive for outdoor recreation while its plant and bird life are varied and interesting.

Beausoleil island, too, played a part in that tragic drama which resulted in the annihilation of the great Huron Confederation at the hands of the Iroquois. After their crushing defeat at Fort Ste. Marie II, a few Hurons, Jesuit clergy, and French soldiers are said to have taken refuge from their persecutors on this island. Ruins of fireplaces and piles of debris which appear to indicate a line of fortifications laid out on military principles are still to be seen and lend support to the belief. Others believe that the ruins are of Ojibway origin, and date back to a period one hundred years later than the downfall of the Hurons when the Ojibways came down from the north and occupied the island. The word "Beausoleil" is a French translation of the Indian name "Chi-kon-de-kiara," meaning "land-seen-in-the-beautiful-light-of-distance," or more freely "land-of-the-beautiful-sun." This charming designation may have owed its origin to the wonderful sunrises and sunsets for which Georgian bay is famous.

Another new park region of interest is that recently set aside covering the Riding mountain in Manitoba. It consists of 1,148.04 square miles of rolling woodland country dotted with beautiful lakes, of which Clear lake, already a resort, is the best known. The new park extends somewhat over fifty miles from east to west, and from twelve to twenty-four miles from north to south. It lies southwest of lake Dauphin and approximately 120 miles north of the international boundary. The eastern portion is broken, hilly country, forming part of the well-known Riding Mountain escarpment. The terrain is cut by deep gorges and covered with dense poplar, spruce and jack-pine forests which will provide opportunities for forest research and nature study in addition to the recreational attractions. On the east and north the escarpment rises abruptly

from the plains. To the south and west the terrain extends in a wide plateau broken by rolling hills. The park is also a natural home for big game and contains one of the largest herds of wild elk on the continent. Moose, deer, bear, and smaller animals are found in numbers, while its ponds and lakes supply a resting and feeding place for thousands of wild birds. Surveys for the construction of a highway to Clear lake were undertaken last autumn and development work will be prosecuted as soon as the season opens.

TRAVEL TO THE PARKS

The present year marks the eighteenth since the creation of the National Parks Branch. In that time astonishing developments have taken place. The number of national parks has been increased from seven to eighteen and the total area from 4,019.5 square miles to over 12,000 square miles. In every part of the Dominion the importance of national parks is appreciated and there is apparent a growing pride in these great national possessions. This interest has been reflected in the rapid growth of travel to the parks, which are no longer regions visited by the wealthy few, but are attracting the multitude.

VISITORS TO NATIONAL PARKS

The number of visitors entering the national parks last year was the largest yet recorded. The total reached 559,329, as compared with 488,721 in the previous year. Totals by parks for the two years show decreases and increases as follows:—

Park	1929-30	1928-29
Banff.....	217,781	236,801
Buffalo.....	18,853	18,454
Elk Island.....	22,611	18,968
Fort Anne.....	18,000	16,000
Glacier.....	1,000	1,000
Jasper.....	15,458	14,000
Kootenay.....	51,772	33,238
Nemiskam.....	100	50
Point Pelee.....	83,200	50,100
Prince Albert.....	10,131	5,118
Revelstoke.....	8,000	8,800
St. Lawrence Islands.....	20,000	18,000
Vidal's Point.....	17,400	15,050
Waterton Lakes.....	48,592	26,002
Yoho.....	26,431	27,140
	559,329	488,721

Increase 70,608.

It will be noted that the largest increase occurred in the smaller parks, Waterton Lakes park showing a growth of nearly 90 per cent. Prince Albert park practically doubled the total of the previous year, while Kootenay park also showed a big increase. The business depression undoubtedly affected long-distance travel to Banff, particularly during the latter part of the summer, a decrease which was, however, partly made up by the increase in motor travel. The total number of cars using the Banff-Windermere and Kicking Horse highways was 98,482, an increase of 5,604 over the previous year. This increase is very gratifying and shows that these roads are fulfilling the purpose for which they were constructed—to act as through routes across the Rockies between the prairies and the coast, and as a means of bringing in foreign tourists to Canada.

REVISION OF PARK BOUNDARIES

The decision to transfer the natural resources to the western provinces led to a revision of the boundaries of the parks on the eastern slope of the Rockies. While the boundaries of these parks have been extended from time to time in the past, such extensions have always been considered as provisional. With the passing of all Crown lands, with the exception of national parks, to the provinces the desirability of fixing permanent boundaries became obvious.

During 1927 Mr. R. W. Cautley, D.L.S., was accordingly instructed by the minister to investigate the eastern areas of Banff and Jasper national parks and make recommendations for the guidance of the Government. Associated with Mr. Cautley was Mr. L. C. Charlesworth, Chairman of the Irrigation Council of Alberta, who was appointed the official representative of that province.

The report submitted strongly recommended, for the facilitation of both forest and game protection, that heights of lands as opposed to streams should be taken as boundaries. It pointed out that the valleys form the natural routes of travel both for game and visitors and that to have a closed area on one side of a stream and an open one on the other would lead to confusion and annoyance as well as danger to park game. The exclusion of certain areas possessing natural resources was recommended, including the Kananaskis and Spray watershed areas, the Ghost River area, the Red River watershed, the northerly portion of Rocky Mountains park, and the Brulé and Rock Lake areas which are believed to contain extensive coal deposits. With the exclusion of the areas recommended in the report, Rocky Mountains, or Banff, national park will be reduced in area from 3,961.50 square miles to 2,585 square miles, and Jasper national park from 4,635 square miles to 4,200 square miles.

PRESERVATION OF WILD LIFE

It is now eighteen years since the national parks were made game sanctuaries, through the establishment of an adequate system of game patrols and enforcement of the regulations. The results attained have been most gratifying. Native species have re-established their numbers to such an extent that the parks are more and more becoming the wild life reservoirs of the country.

Restocking.—In the past two or three years provincial governments have been drawing on the parks to replenish depleted game areas in other parts of the country. Two regions in the southern part of British Columbia have been stocked with Rocky Mountain sheep and an additional area between the Okanagan and Kettle valleys with elk. During the past year the British Columbia Government took up with the Department of the Interior the question of restocking the Queen Charlotte islands with elk. Authority was granted to furnish them with a small herd from the Buffalo park at Wainwright. The animals were cut out of the main herd—which now numbers 600—early in the spring, corralled until safe to handle, and then placed in specially constructed crates. Through the co-operation of the Canadian National Railways a special baggage car was provided which was attached to the regular passenger train for Prince Rupert and went through express to that port. Here the elk were transferred to a boat sailing to the Queen Charlotte islands. No loss or injury was sustained in transit and according to report the animals are settling down and adapting themselves successfully to their new surroundings.

Scientific and Educational Shipments.—Shipments for scientific and educational purposes were also made to various parts of the world. Two female buffalo were shipped to the Zoological Gardens of the city of Johannesburg, South Africa, and arrived in good condition after their long journey. A pair of beaver and a buffalo cow were presented to the Royal Zoological Society of Antwerp, Belgium. One male and two female buffalo were forwarded to the

Zoological Society of the city of Adelaide, Australia; two male buffalo and a pair of beaver to the Zoological Gardens at Auckland, New Zealand; and a pair of Rocky Mountain sheep to the Zoological Gardens, London, England. The Division of Animal Husbandry, United States Department of Agriculture, at Matanuska, Alaska, applied for one male and three female yak for experimental purposes in connection with the experimental farm there, and these animals were shipped in the autumn. A Rocky Mountain ram was presented to the Edmonton Exhibition Association, and one pair of sheep and a male elk to the city park authorities of Fort William, Ont. Two female buffalo and a pair of elk from Buffalo park were also donated to Stanley park, Vancouver, B.C. The male elk died shortly after arrival and an additional male was accordingly sent. A pair of Rocky Mountain goat was forwarded to the Zoological Gardens, Victoria, B.C. The corralling and shipping of such large wild animals, as most of the above, involves a good many difficulties, but it is gratifying to know that nearly all the animals reached their destination in good condition and are reported to be doing well.

Government Buffalo Herds.—The Government buffalo herds are in a very thriving condition. Nearly all problems in connection with their maintenance have been successfully met; the chief difficulty now is to keep their numbers within the forage limits of the reserve. The rapidity of increase is shown by the fact that if no disposal had been made of surplus animals since the original purchase in 1909, the herd through natural increase alone, would now total about 20,000 head. The calf crop at Buffalo park last year numbered about 1,200, with an approximately equal number of males and females.

The wisdom of the department's action in reducing the numbers in Buffalo park and of increasing the range at Elk Island park was particularly evident last year. The season proved to be very dry and the forage consequently scanty and poor, yet, owing to the fact that there was no overcrowding, the herds reached the autumn in good condition. Except for a severe spell in December, the winter was favourable, with moderate temperatures and snowfall and the animals came through well. A census taken in March showed 5,016 buffalo in Buffalo park and 716 in Elk Island park. No new shipments were made to the Far North during the year. In the autumn, with a view to keeping the herd in Buffalo park near the 5,000 total, a slaughter of 500 animals was decided upon. This was carried out early in December when the fur was prime. Owing largely to the educational and publicity efforts carried on by the department there now exists a ready market for buffalo products and no difficulty was found in disposing of the meat and hides, both at an advanced price compared with the previous year. Investigations were made with a view to improving forage conditions in Buffalo park and, at the request of the parks authorities, an official of the federal Department of Agriculture spent some time at Buffalo park, examining soil conditions and the present herbage. Steps are being taken to put the recommendations contained in his report into effect.

Antelope Herd.—The antelope herd at Nemiskam park is thriving. Climatic conditions during the past year were very favourable, particularly the mild winter with its light snowfall. There was an abundance of grass in the park, the antelope came through the cold season in good condition with no loss, and the natural increase in the spring was very satisfactory. The herd in Nemiskam park now totals 300. The chief enemy of the antelope is the coyote but, as in other parks, this pest was less troublesome this year, apparently owing to some epidemic which decreased the number. In co-operation with the Department of Agriculture an investigation was made with a view to determining the importance of sage brush in the feed of antelope and of discovering methods of increasing the growth of the plant in Nemiskam park.

Beaver.—Questionnaires were sent out to the game warden staffs in Banff, Jasper, Waterton Lakes, and Elk Island national parks, to obtain a census of the present number of beaver in each park; also suggestions as to their control where desirable and propagation in selected areas. Beaver had increased to such an extent in Cabin lake, Jasper park, that they were causing trouble with the water supply system there. The superintendent was authorized to trap a number of these alive and to place them in other waters of the park. Beaver were also found to be damaging the fish hatchery at Waterton Lakes park and authority was given the superintendent there to capture twenty-five animals alive for transfer elsewhere in the park.

FIRE PROTECTION

Owing to the extreme dryness of the season a number of fires occurred in the parks. The vigilance of the wardens, however, and the use of up-to-date fire-fighting equipment reduced the fire damage to the minimum. There are now in the parks 150 portable pumps with 200,000 feet of 1½-inch hose; several self-propelled pumpers with hose trucks similar to those used in cities, for use on highways; trailer pumpers of 20 horse-power; and automobile front-end pumps. Each year the equipment is being added to and the manner in which fires are now brought under control shows the efficiency of the provision made to safeguard the great park areas from fire.

The numbers of fires, the areas burned over, and the cost of extinguishing is shown by the following tables:—

RAILWAY FIRES DURING 1929-30

Park	Number of fires	Area burned acres	Cost of extinguishing \$ cts.
Jasper.....	3	9½	176 62
Banff.....	12	10¾	139 76
Yoho.....	6	4¾	25 01
Totals.....	21	25	341 39

GENERAL FIRES DURING 1929-30

Jasper.....	16	42½	450 95
Banff.....	33	3,476½	17,297 68
Yoho.....	3	1,500½	3,218 46
Glacier.....	2	5	246 80
Buffalo.....	1	2¼	10 00
Elk Island.....	3	1¼	2 50
Kootenay.....	9	100	1,796 13
Mount Revelstoke.....	5	116	1,932 37
Point Pelee.....	2	4½	.....
Prince Albert.....	6	10,650¼	1,489 70
Waterton Lakes.....	6	.....	67 75
Totals.....	86	15,898¾	26,512 34
Grand totals all fires.....	107	15,923¼	26,853 73

THE BIG BEND HIGHWAY

Following negotiations between the federal Government and the Government of British Columbia, arrangements were made for the construction

of the Big Bend highway which will connect Revelstoke with Golden and form the last link in the western section of a trans-Canada motor route. The road, which is now under construction, when completed, will provide a direct way through all-Canadian territory from Winnipeg to Vancouver and furnish an artery of communication which from a tourist point of view should prove of inestimable economic value to the country. Two years ago the Dominion Government constructed a link in the highway from Lake Louise in Banff national park through the Kicking Horse pass via Yoho park to connect with the provincial road through the Kicking Horse canyon from Golden, B.C. About the same time the province of British Columbia completed the scenic highway up the Fraser valley and as far as Revelstoke, B.C. There remained only the barrier of the Selkirk range to be surmounted, but this involved many engineering difficulties. Under the agreement made by the Government of Canada with the province of British Columbia the eastern section of the Big Bend highway from Donald to Boat Encampment at the head of the Big Bend will be constructed by the Dominion, while the western section from Boat Encampment to Revelstoke will be built by the province of British Columbia.

The Big Bend route will afford a spectacular scenic motor trip. The highway from Calgary to Vancouver, will pass through mountain scenery of unsurpassed grandeur and sublimity. Lofty mountains, deep luxuriant valleys, snowfields, and glaciers with many charms truly alpine in character, will be unfolded to the tourist. By the completion of this link the people of the Prairie Provinces will have ready access to the sea-level climate of the coast, while Banff and the beautiful Lake Louise district will be brought within easy reach of the people of the Pacific coast.

Over 500 miles of motor highways, more than 2,000 miles of trail and nearly 900 miles of telephone lines were under maintenance last year. The mileage by parks is as follows:—

Park	Roads	Number of miles	
		Trails	Telephone lines
Banff.....	145	769.0	235.25
Jasper.....	108	647.50	308.25
Yoho.....	55	168.25	44.25
Glacier.....	9	121.0	7.0
Waterton Lakes.....	34	225.25	57.37
Kootenay.....	71	115.50	64.00
Mount Revelstoke.....	19	34.25	17.25
Buffalo.....	11	.....	34.50
Prince Albert.....	34	7.0	89.0
Elk Island.....	15	.....	.....
Point Pelee.....	7	.....	.....
	508	2,087.75	856.87

LANDSCAPE AND ARCHITECTURAL WORK

The plans of a large number of buildings proposed to be erected in the various national parks were examined and in the majority of cases drawings showing suggested revisions to elevations were prepared with a view to improving the external appearance without adding to the cost of buildings. These included designs for residences, stores, hotels, theatres, banks, churches, hospital, service stations, masonic lodge, tea rooms, public garages, and other structures.

Working and detail drawings and specifications were prepared for the following new Government-owned buildings.

Gateway building, eastern entrance to Banff park.

Milk vendor's store at Tunnel Mountain auto campsite, Banff park.

Addition to dressing room accommodation at Cave and Basin swimming pool, Banff park.

Residence for superintendent, Kootenay park.

Stores and garage building, Yoho park.

Residence for superintendent, Yoho park.

Gasolene and oil storage building, Yoho park.

Addition to Government garage, Waterton Lakes park.

Addition to Administration building, Waterton Lakes park.

Administration building, Prince Albert park.

Caretaker's office, auto camp grounds, Prince Albert park.

New Royal Canadian Mounted Police quarters, Prince Albert park.

Alterations to foreman's cottage, Buffalo park.

Refreshment pavilion, Point Pelee park.

Pavilion, Beau Rivage island, St. Lawrence Islands park.

Plan of War Memorial park at Mattawa, Ont.

A number of plans for new subdivisions and automobile camp grounds in Prince Albert park, where new roads are opening up attractive building areas, were prepared, also plans of proposed zoning areas in the townsite of Banff. Designs were drawn as well in furtherance of landscape development at the Great Divide near Stephen, B.C.

PUBLICITY

The Publicity Division was very active during the year. A systematic course of lectures illustrated by moving pictures and coloured lantern slides was given in Canada and the United States. Attractive publications were issued, moving pictures loaned, and articles and memoranda furnished to writers, magazines, and newspapers. The number of lectures delivered during the year was 140. Moving pictures shown outside the office, 718; within the office, 1,788; loaned, 355. The photographic library was increased by several hundred negatives; 23,975 new prints were added to the collection; and 16,481 distributed. Enlarged pictures sent out numbered 1,162; coloured slides added to the collection, 3,456; loaned, 4,710. Eighty-five lectures were prepared and provided for outside lecturers and 437 articles with 291 cuts furnished papers and magazines. Framed pictures used for exhibition purposes numbered 340.

To meet the increasing demand for publications, 344,380 pamphlets (new editions and reprints) were printed. These included:—

First editions—*Jasper*, 10,000; *Banff, Kootenay and Yoho Parks*, 25,400; *Guide to Waterton Lakes Park*, 25,000; *Elk Island Park*, 25,000; *Geological Story of Jasper National Park*, 10,000; *Guide to Fort Wellington*, 10,000; *The Succession of Fossil Faunas in the Eastern Part of Jasper Park*, 1,000; *Sedimentation in a Glacial Lake*, 1,000.

Reprints—*Banff, Kootenay and Yoho Parks*, 51,250; *Rocky Mountains Circle Tour*, 50,000; *Waterton Lakes Park*, 35,815; *The Kicking Horse Trail*, 25,100; *Kootenay National Park and the Banff-Windermere Highway*, 25,300; *Guide to Fort Anne*, 25,450; *Through the Heart of the Rockies and Selkirks*, 10,065; *Prince Albert National Park*, 10,000; *Tourists' Guide of Canada-1929*, 1,000.

During the year 209,095 pamphlets were distributed, besides 2,500 copies of the Annual Report of the Commissioner of National Parks, 1927-28.

REVENUE

Revenue collected by the National Parks of Canada during the fiscal year ended March 31, 1930, amounted to \$251,007.78. The following statement shows the revenue by parks:—

	1929-30	1928-29
	\$ cts.	\$ cts.
Banff National Park.....	148,851 63	150,963 10
Buffalo Park.....	26,430 39	23,561 61
Elk Island Park.....	9,343 50	5,993 15
Glacier Park.....	142 23	166 14
Jasper Park.....	35,252 72	29,994 39
Kootenay Park.....	14,431 51	13,729 64
Nemiskam Park.....	384 00	384 00
Point Pelee Park.....	401 75	607 37
Prince Albert Park.....	594 73	379 77
Vidal's Point Park.....	171 00	72 00
Waterton Lakes Park.....	6,926 42	5,622 08
Yoho Park.....	3,760 00	3,223 17
Fort Anne Historic Park.....	1 00	6 00
Brereton Lake Recreational Area.....	10 00	10 00
Hawke Lake Recreational Area.....	10 00	
Lake Florence Recreational Area.....	66 00	60 00
Fines and forfeitures.....	2,876 59	2,590 93
Historic sites.....	30 00	32 00
Migratory Birds.....	70 15	74 00
Miscellaneous.....	1,254 16	1 00
	251,007 78	237,470 35

Detailed reports of the work in the different parks are found hereunder.

SCENIC PARKS

BANFF NATIONAL PARK

Reports show that Banff national park had a very successful year. Tourist travel by motor assumed greater proportions than ever before. The total number of cars, east-bound and west-bound, through the Kananaskis gateway was 74,246, an increase of 6,410 cars over the previous year's figures. Passengers numbered 142,337, or 21,439 more than in 1928. Of the grand total of visitors by motor 135,577 were from Canada and 6,760 from the United States.

Tunnel Mountain motor campsite showed increasing popularity. During the season 7,309 cars and 26,861 persons were accommodated on the grounds, establishing a record. Of the campers 24,139 were from Canada and 2,722 from the United States. The record for a single day was made on June 30, 1929, when 768 cars and 3,141 persons were in camp, as compared with 685 cars and 940 motorists on July 15, 1928.

As usual the Government hot springs proved popular with bathers. At the Cave and Basin bathing house registrations showed 66,305. New daily and week-end records were established. On July 1, 2,295 bathers passed through the turnstile, and during the week-end June 29-July 1, 4,731 bathers were accommodated. The number of visitors to the Cave adjacent to the hot springs was 61,010. At the Upper hot springs there were 46,146 registrations.

Museum, Zoo, and Animal Paddocks.—An outstanding place of interest to visitors is the Banff museum. During the year over 20,000 people viewed the collections of big game and smaller animals; bird, fish, and plant life of the region; geological specimens and Indian relics. The Banff zoo was again the centre of interest for thousands of tourists. The animals and birds now being

cared for at the zoo include: 1 polar bear, 2 grizzly bears, 1 black bear, 1 cinnamon bear, 1 mountain lion, 1 Canada lynx, 1 bobcat, 4 timber wolves, 4 coyotes, 1 badger, 2 martens, 1 gopher, 3 porcupines, 1 ermine, 2 great horned owls, 1 peacock, 2 golden eagles, and 4 Canada geese. The exhibition herds of animals at the paddocks were in splendid condition. These comprised 22 buffalos, 25 elks, 7 Angora goats, 10 Rocky Mountain sheep, 9 four-horned sheep, 7 Rocky Mountain goats and 5 yaks.

Permits and Licences.—Permits and licences covering the various business activities carried on in the park totalled 20,560. Of these 18,203 were motor licences for transients. Motor licences for park residents numbered 625; guides' licences, 58; chauffeurs' licences, 515; restaurant and tea room licences, 41.

Banff Fire Protection.—There were few fires during the tourist season, and what outbreaks occurred were quickly brought under control and caused no serious damage. During the year the Banff volunteer fire brigade responded to nineteen alarms. The total loss amounted to \$723. The brigade now numbers 25, officers and firemen. A night patrol was maintained in the townsite by the local detachment of the Royal Canadian Mounted Police.

Mosquito Control.—The campaign against mosquitoes in the park has shown gratifying results. After a thorough investigation of conditions some years ago, officers of the Department of Agriculture found that the most important species of mosquito to combat in the neighbourhood of Banff was the *aedes*, members of which breed in flooded areas. When hatched out the adults may travel as far as four or five miles. Experiments have shown that the eggs retain their fertility as long as six years. During the larva and pupa stages the insects must breathe through the surface of the water and a thin film of oil will cause their death from suffocation in a maximum time of four hours. During May, June, and July of 1929, ten men were employed in the distribution of oil over the areas affected. A total of 2,565 gallons of oil was used on an area of 4,500 acres. Satisfaction was expressed by the officials in charge of the work that the fish *Gambusia affinis*, an enemy of the mosquito, which had been deposited some years ago in the pool above the Cave and Basin, had been prolific in their increase.

Roads.—The roads in and about Banff and throughout the park were maintained in excellent condition during the season.

Trails.—A new trail was constructed from Castle Mountain bungalow camp to Taylor lake, a distance of three miles.

Cabins.—A new cabin (No. 2 type) was constructed at each of the following points: On Bow Lakes trail, 10 miles from Lake Louise; at Bow pass; at Waterfowl lakes; on the Saskatchewan river near the mouth of Howse river. A storehouse was also erected near the mouth of Howse river.

Forest Telephone Lines.—New telephone lines were constructed from a point seven miles up the Spray river to Seventeen-mile camp, and from Lake Louise to Bow pass.

Public Health.—Little sickness was reported in Banff during the past year. Sanitary measures relating to the collection of garbage were strictly observed. Samples of milk and water were periodically submitted for analysis to the University of Alberta, Edmonton, and the returns in every case proved satisfactory. During the period from October 31 to November 5, the annual test of the dairy herds was made by Dominion Government inspectors and all the animals found to be free from tuberculosis.

Sports.—Banff is becoming more and more a centre for athletic events of all kinds. During the summer mountain-climbing, boating, swimming, and golf drew thousands to the park. The annual Indian Days' pageant and sports were carried out on July 23, 24, and 25, and were largely attended.

During Christmas week the Mount Norquay Ski Club started its activities, which subsequently gave much enjoyment to the members and winter tourists.

The winter carnival held under the auspices of the Banff Winter Sports Association was most successful. From February 1 to 8 great crowds attended the sports. There were racing, swimming and diving events, hockey matches, sleighing, ski-ing, toboggan races, dog races, ladies' hockey matches, trap shooting, ski-joring, and carnival dances. The last day was mainly devoted to a curling bonspiel and other ice events.

JASPER NATIONAL PARK

Jasper park is rapidly increasing in popularity. Last season the total number of visitors was 15,458, as compared with 14,000 the previous year. A large number of the visitors were accommodated at Jasper Park Lodge, which has been enlarged to care for 600 guests. The golf links were greatly improved by the removal of boulders from the fairways, the addition and adjustment of bunkers, and extensive fertilization. In August the Canadian Amateur Golf tournament took place, and early in September was held the usual Jasper Park Lodge Totem Pole tournament.

During the season many improvements were made in Jasper townsite to meet the needs of a rapidly growing population. A considerable amount of new sidewalk construction was completed, the electric and water services extended, and the work of installing the sewerage system continued.

New Buildings.—Building operations in Jasper included 15 residences, 1 new hospital, 1 store and a number of garages and small buildings. In addition the Canadian National Railways took out permits for extensions, including 1 golfers' sleeping quarters, 1 sixteen-room cottage, 2 ten-room cottages, 1 two-suite cabin, 2 sixteen-room cabins, 1 nurses' building, 1 four-suite cabin, 1 garage, altering 6 cabins, and extending steam lines, water lines, electric light and telephone services. The estimated cost of all above extensions and improvements undertaken was \$441,845.

Roads and Bridges.—The portion of the Maligne highway from the railway crossing to Jasper Park Lodge, which had been surfaced with McMurray tar sands, stood up well under the traffic, and was maintained in excellent condition. The rest of the road was gravelled where necessary.

At the new Miette River bridge the approaches were filled with 2,262 cubic yards of material and strengthened at the highest points by strong log cribs. On the Edith Cavell highway a considerable amount of widening was done on the upper sections. The road was in good condition during the season and only a small amount of gravelling was required. The tote road from the Astoria bridge on the highway to the Whirlpool River bridge, eight miles in length, was completed. Along the river flats where boulders protruded, a covering of heavy silt was laid, which packed down and made a smooth running surface. On the Medicine Lake tote road culverts were put in at low points and considerable gravelling done. This road is being used increasingly each year by cars from Jasper in connection with trips to the wonderful Maligne Lake district.

The Rocky River trail was continued from mile 18½ to mile 36. Standard construction was maintained, making a good path for the pack train. When completed this trail will join the standard trail at Southesk river and the Forestry trail. There are now 379 miles of standard trails in Jasper park and

268 miles of "pack" or second-class trails. Fifteen miles of new telephone line were constructed during the year from Jacques lake to and up Rocky river. Forest telephone lines within the park now total 308 miles. New buildings included a warden's cabin of improved design at the forks of Rocky river.

Sanitation.—The drainage system was extended and new sewers installed and the usual routine of garbage collection and other sanitary measures continued.

Horses.—There are now ninety draft, saddle, and pack horses in the Government service in Jasper park.

Fires.—During the season there were three railway fires, two of which were caused by sparks from locomotives. The areas burnt over total nine and one-half acres and the cost of extinguishing was \$176.62. There were also sixteen fires of a general nature in the park which were extinguished at a cost of \$450, and one town fire which caused a loss of \$300.

Wild Life.—There has been a noticeable increase in all species of wild life in Jasper park. Grazing and food conditions generally were everywhere good and the animals appear well nourished and healthy.

Elk are becoming quite numerous and are finding new feeding grounds all over the park. The largest herds range between Pyramid mountain and Cabin creek, and many frequent the Athabaska and Miette valleys. The number of elk in the park is placed between 3,000 and 4,000.

There was a large increase in Rocky Mountain sheep during the year. All the old ranges, including Pocahontas, Interlaken, Brazeau, Snake Indian river, Moose Horn creek, Southesk river, and the northern boundary of the park, were well stocked. The sheep are now spreading wherever they can find suitable ranges. A large flock has been seen regularly at Cavell bridge on the motor highway, and has been a great attraction to tourists. A fine herd may also be seen daily on the Maligne range. It is estimated that there are now 20,000 sheep in the park.

Rocky Mountain goat are multiplying rapidly and are in good condition. Large herds may be seen about mount Kerkeslin, the shale banks on the Snake Indian river, Smoky river, Colin range, and Maligne lake. They are also found to be in increasing numbers between Circus valley and Whistler mountain, where they keep to high altitudes. The supervising game warden places their number at between 9,000 and 10,000.

Black bear, cinnamon bear, and grizzly bear are becoming numerous. Grizzlies have been seen during the spring and early summer in the low valleys, especially the Athabaska valley, around Devona and Hawse. They are also found in numbers in the Moose Horn valley. Last year there were estimated to be 5,000 bear of all kinds in the park.

Moose range in practically every valley and are becoming very plentiful. These animals have been seen in large numbers about the Brazeau, Rocky, and Snake Indian rivers, and last fall twenty-eight splendid specimens were seen at Four Point camp near Nigel pass. There are at least 10,000 moose in the park.

The season was particularly good for deer which now inhabit practically every valley in the park. They have shown a marked increase and are in fine condition. The Athabaska and Brazeau valleys are favourite feeding grounds for these graceful animals which now number in the park approximately 25,000.

Caribou are steadily increasing in number. Their range is along the northern boundary about Byng pass and Twin Tree lake, the Tonquin and Circus valleys and Smoky river. There are at least 9,000 caribou in the park.

Beaver, marten, lynx, and coyote are on the increase. New beaver houses and dams were noticed on several creeks and many lakes abandoned by these animals years ago are again being occupied by them. Wolf and wolverine are not so numerous as in previous years.

Sports.—Fishing was particularly good during the season. Fine catches were made at Caledonia lake, Jacques lake, at Buffalo prairie and in the Brazeau river. The 250,000 speckled trout fry deposited in Maligne lake last June appear to be doing well. A shipment of 50,000 rainbow trout eggs hatched at Jasper during the summer was distributed in Cabin lake.

During the winter a party of skiers from Jasper made the first ski trip on record to Banff. The journey took fifteen days to accomplish and was made during bitterly cold weather. Three high mountain passes had to be crossed and 160 miles of unbroken trail followed. Food supplies had been cached several months in advance at locations which would be accessible under skiing conditions and free from the depredations of wild animals. It was a noteworthy achievement.

In the month of March a party of skiers from Minneapolis visited Jasper park. Under the leadership of an experienced guide, the party proceeded through the Maligne Lake district, over McLeod pass, down to Brazeau lake, thence up Brazeau river and over Nigel pass to camp Parker, returning to Jasper via Brazeau lake, Poboktan pass and Maligne lake. The members of the party were so impressed with the trip they expressed an intention of returning next winter.

WATERTON LAKES NATIONAL PARK

Improved facilities for taking care of tourists and good weather conditions combined to give Waterton Lakes park its most successful year. The total number of registered visitors was 48,592, as compared with 26,002 the previous season. Of these 36,838 were from Canada, 11,673 from the United States, 62 from transatlantic, and 19 from transpacific points. The total number of motor cars entering the park was 14,725.

Many improvements were made in the townsite by planting trees, laying out flower beds, and grading, gravelling, and oiling the streets. Building operations were started on eight new buildings, and a fine addition was made to the school-house. Construction work on the new Roman Catholic church was well advanced.

Sports.—The facilities for sport were extended and the golf links, tennis courts, and bathing beaches were thronged during the season. At the golf course a new club-house was completed. The fairways and greens were in good condition, and accommodated over 60 per cent more players than last season. The tennis courts at the recreation grounds were maintained in excellent condition, and the bathing beach at Linnet lake was improved. Owing to the increased number of campers at Waterton lakes the campsite was extended, new sites provided, three new shelters erected, and an addition made to the community house.

Roads and Bridges.—Work on the Akamina highway progressed, and the road is now in good condition from the townsite to the junction with Cameron Lake road. The Pass Creek road was graded as far as the upper bridge and in places relocated. Beyond this point to Red Box canyon the road where necessary was gravelled. On the Pincher Creek entrance road the work was mainly confined to straightening the "S" bend. At Waterton bridge the approaches were improved and the bridge itself strengthened.

During the tourist season the roads leading into Waterton Lakes park were in good condition. The road from Cardston to the park, which connects with the

motor highway leading into the United States, was kept in repair by the provincial authorities and also the road from Cardston to Macleod. The park was thus connected with roads to the south and with a good gravel highway as far north as Edmonton.

Trails.—All trails were kept in a good state of repair. Six miles of construction work was carried out on Carthew trail, which is now passable from Cameron falls to Cameron lake. This scenic way when completed should prove one of the most popular in the park. Work was also done on the Bertha Lake Shore, Pass Creek, and East Boundary trails.

Fires.—Seven fires were reported during the season but by prompt measures these were quickly controlled, and the damage done was negligible. At Cameron lake where the largest of these fires occurred a new cabin was built and furnished with fire-fighting equipment.

Sanitation.—An officer of the Department of National Health made an inspection of sanitary conditions and arrangements were made to ensure satisfactory water supply and sewage disposal. An incinerator was built and better facilities provided for the disposal of refuse.

Wild Life.—Wild life of many kinds appears to be on the increase. Mule deer, beaver, coyote, and rabbit are plentiful throughout the park, while elk, mountain sheep, and mountain goat are steadily increasing in numbers. White-tail deer, moose, wolf, marten, lynx, and fox are scarce, and bear show a noticeable decrease. Of particular interest is the great increase in beaver. There are now over 1,500 of these animals in the park.

YOHO NATIONAL PARK

Motor travel to Yoho national park totalled 8,117 cars carrying 26,431 persons. The season was a particularly dry one, and due to the absence of fires and the general good condition of roads and trails, ideal for visitors. The heaviest traffic to the park was from the east, entries by the Kicking Horse pass showing 5,268 cars and 17,036 persons. Of these 4,143 cars were Canadian and 1,125 foreign. Eastbound cars totalled 2,847—2,457 Canadian and 390 foreign—carrying 9,395 persons. This is an increase over the previous year of 982 cars and 2,291 passengers.

During the season many betterments were made in the park. The town-site of Field was much improved, trees pruned, and streets regraded. Work on the residence for the park superintendent was started, a new fireproof gasoline and oil house constructed.

The camp sites throughout the park were kept in splendid condition. At the Kicking Horse campsite a new community kitchen was erected and equipped with camp stoves, tables, and benches. Registrations at this camp ground showed 928 cars and 3,328 people. Camps were opened on the roads leading to Yoho and Emerald lakes and these as well as the camp grounds at Field and Chancellor peak were well patronized during the season by the motoring public.

Road Improvement.—A great deal of repair work was done on the main and subsidiary roads. The main highway from the east to the west boundaries of the park was maintained in excellent condition. The road was widened in places and the whole highway oiled. On the two and one-half-mile section of road near Misko the grade was widened. Between the railway crossing and the bridge over the Kicking Horse river, the river bank was matted for a distance of about 600 feet. The Ottetail road was graded and the Yoho and Emerald Lake roads improved. On the Yoho road a considerable amount of

log crib work was done to widen the grade to standard width, and 1,600 feet of guard-rail constructed. The whole of the road was surfaced, and the turns at the Switchback widened. Portions of the road were oiled. Travel on the Emerald Lake road is always particularly heavy during the period the Chalet is open, and besides widening the road a great deal of surfacing was necessary to keep it in condition. The roads were regularly patrolled by the Royal Canadian Mounted Police and throughout the season no serious accidents were reported.

In co-operation with the Canadian Pacific Railway Company, park officials commenced improving and developing the area near the Great Divide. On both sides of the summit the stumps and debris are being cleared away. A new channel was made for the creek. At a point just below the main highway the channel was widened to form a pond, at the outlet of which a waterfall was constructed.

Trails.—New trail construction consisted in building an extension to the Otterhead trail up Otterhead creek for a distance of five miles. This will greatly facilitate fire protection work as it makes Otterhead valley accessible to workers with fire equipment. Amiskwi, Summit lake, Emerald lake, Burgess pass, Emerald creek, Upper and Lower Twin falls, President glacier, and Ottetail trails were cleared and repaired. These trails open on some of the most spectacular scenery in the Rockies. Signboards showing mileage were placed at all points of trail intersection.

Wild Life.—Wild life, including moose, deer, and fur-bearing animals, is on the increase. Fishing in the lakes and streams of the park was better than in previous years. Ninety thousand rainbow trout fry were distributed in the park waters from the Banff hatchery. Of these 20,000 were placed in Cataract creek, 10,000 in Ross lake, 25,000 in lake O'Hara, 5,000 in Giddie creek, 20,000 in Emerald lake and 10,000 in Yoho lake.

Fires.—During the season four railway fires were reported but owing to prompt action were quickly controlled. Only one bush fire, caused by lightning, did extensive damage. This outbreak along the river burned over an area of about 1,500 acres.

GLACIER NATIONAL PARK

The season was a quiet one in Glacier park as far as tourist travel was concerned. This may be attributed to the fact that at the present time the park lacks tourist accommodation. Since the dismantling of the old Canadian Pacific Railway hotel at Glacier no new building has been erected. The building of the Big Bend highway through the valley of the Columbia river will no doubt result in increased travel to Glacier park, as the road will skirt the park and open this spectacular Selkirk region to motorists from the Pacific coast and the Prairie Provinces.

Roads.—Early in the season the road gang repaired the road between the railway station and the site of the old Glacier hotel. The Rogers Pass road and the road to the Nakimu caves were graded and repaired. Mount Hermit, Rogers Pass, Flat Creek, Baloo Pass, Beaver River, Grizzly Creek, and Asulkan trails were gone over and put in good condition. An addition was made to the warden's cabin at Glacier. Repairs were also made to the Flat Creek cabin and the caretaker's cabin at the Nakimu caves.

Nakimu Caves.—Development work at the Nakimu caves was continued. The passage-way from Number Two entrance through Satan's Palace to the Ball Room was widened and improved. Concrete and wooden stairways with handrails were constructed. In Number Three cave the stairways were repaired and at points replaced.

Alpine Club.—The Alpine Club of Canada held their twenty-fourth annual camp on the site of the old town at Rogers pass. The visitors, who came from many parts of the world, numbered 142.

Wild Life.—Wild life in the park is plentiful. Goat, caribou, deer, and bear are numerous, and the fur-bearing animals appear to be on the increase, particularly marten and beaver.

KOOTENAY NATIONAL PARK

The Banff-Windermere highway was opened to tourists in May and a good year was reported. There was a slight decrease in travel from the Prairie Provinces attributable to business depression. During the season 16,121 cars carrying a total of 51,772 passengers registered in the park. Of the visitors 39,444 were Canadians and 12,328 citizens of the United States.

The bathing house at the Sinclair Radium hot springs, which was opened last June, had a record attendance. During the season 25,064 bathers made use of the baths. The pool is now 110 feet in length, an extension of thirty feet having been made last October. Three new cabins were erected by the Canadian Pacific Railway company on their property at the Radium hot springs. Further building operations included the superintendent's residence and garage.

Campsites.—Improvements were made to all campsites and at Sinclair Canyon campground two new shelters were erected. During the month of November all the cabins were removed from the Bungalow camp at Vermilion crossing to Storm mountain, with the exception of the main building which was transferred to the Royal Canadian Mounted Police for use during summer patrol work.

Roads and Trails.—The highway was maintained in splendid condition. Double hub rails were placed at curves in the road and no accidents were reported during the season. The old Settlers road from the highway to the southern boundary of the park was made fit for motor travel. This in addition to being of interest to tourists is important for fire protection work, as fire equipment may now be moved and patrols made by car. Two miles of motor road were built from Kootenay Crossing up Kootenay valley and the remainder of the trail cleaned out to the northern boundary of the park. Three miles of trail were also reconstructed up the Hawk Creek valley, and two additional miles of trail cleared. This trail when completed will connect with the Red Earth trail over Ball pass in Banff park now under construction. A survey was made for the location of a trail from Floe lake to Wolverine pass. When this and the Hawk Valley trail are completed a through scenic trail will be provided from Banff to Yoho park via Kootenay park.

Fires.—Although the season was unusually dry no serious fires occurred.

Wild Life.—A marked increase in wild life of all kinds was noted. Along the Kootenay valley bear, moose, and elk were numerous, and hunters during the season reported plenty of game outside the park boundaries.

MOUNT REVELSTOKE NATIONAL PARK

Work was begun on the lower slopes of Mount Revelstoke highway the last week in April. At narrow points the road was widened and put in good shape to the summit of the mountain beyond lake Balsam, where a loop in the road was constructed to facilitate the turning of cars. During the season 1,411 persons registered at the forest outlook station at the summit. This number, however, represented only a percentage of the people who actually entered the park.

Roads and Trails.—The public camping ground laid out in 1928 on the shores of Balsam lake, was extremely popular with tourists. The road leading from the main highway to the lake was conditioned to enable cars to drive right to the campground. An extension of two miles was made to the fire trail commenced last year towards the Clachnacudainn slopes. The trail passes through dense timberland and is an added safeguard for fire-protection purposes. All other trails in the park were cleared and repaired, particular attention being given to the Lindmark and Greely Creek trails, and those leading to Eva and Millar lakes, as the areas to which they lead are of increasing interest to visitors.

The three wooden posts which had been planted by H.R.H. the Prince of Wales, H.R.H. the Duke of Connaught, and H.R.H. Prince Arthur of Connaught, to mark various stages of road construction, were replaced by stone cairns each with a bronze tablet suitably inscribed. The sectionmen's cabins at the four-mile and sixteen-mile posts were repaired and further improvements made on the ski hill. The outside turn on the runway was built up, and benches were constructed for the convenience of spectators. The annual ski tournament was held the first week in February and was well attended.

Fires.—Five fires were reported during the season. With the exception of one, which burned over about one hundred acres of timberland, they were extinguished before any material damage was caused.

PRINCE ALBERT NATIONAL PARK

Over ten thousand tourists visited Prince Albert national park last year, which indicated the increasing popularity of the park as a resort for campers, canoeists, and fishermen. During the month of August the Regina Board of Trade held a convention in the park, there being present 160 persons. A delegation from the newly formed Provincial National Parks Association also spent four days in the park viewing points of interest. Among distinguished visitors during the summer were Lord and Lady Cromer and party.

Building.—Considerable activity took place in the Prospect Point residential subdivision last year. Three new cottages were erected and construction work begun on two. Many inquiries were made about building lots along the southwest shore. When the road to the Narrows is completed this district should be popular as the building sites are in close proximity to lovely sand beaches. In the business subdivision one new store was erected and five lots filed on by firms which propose building early next year. The park superintendent's residence, at Waskesiu lake is now ready for occupation.

Campsites.—Last spring the campsite along the main beach of Waskesiu lake was enlarged by underbrushing, clearing and draining. During July and August further extensions were made to this site to accommodate campers. An attractive area was cleared on Kingsmere lake, two small campgrounds were established on Crean lake, and a large one at Sandy lake. The last mentioned is situated half way between Prince Albert and Waskesiu lake, and is made use of by those wishing to break the journey to Waskesiu.

Roads.—The highway to Waskesiu, completed in the fall of 1928, was maintained in good condition. The entire road was gravelled and construction work was also done on the Meridian-Rabbit road.

Air Base.—In view of the great increase in commercial flying in the northern part of Saskatchewan it was considered advisable to establish an air base at Waskesiu lake. This was done and the base was used during the summer and fall by privately owned and Government forestry planes.

Telephones.—The forestry telephone lines were extended to the air base at Waskesiu lake and to Crean lake. These communications proved very useful in game-protection and fire-suppression work.

Permits and Licences.—Seventy permits and licences were granted last year. These included: 7 timber, 5 building, 14 hay, 10 lot-rental, 5 hay-cutting, and 5 air-base permits; and 14 chauffeur, 3 motor-livery, and 2 boatman's licences.

Fires.—Six fires were reported in the park during the year which were extinguished at a total cost of \$1,489.70. The majority of the fires started outside the south and west boundaries of the park.

Wild Life.—There was a noticeable increase in wild life last season. Moose, deer, and elk were numerous and are becoming quite tame. Caribou, while not so plentiful, were reported in sections of the park where they have not been seen for years. Birds, particularly waterfowl, are multiplying rapidly.

The investigations of the game fish possibilities of the waters of Prince Albert park, which are being carried out through the assistance of the Biological Board of Canada, were continued by a small field staff of trained workers. The general survey begun the previous year was extended by additional work on Crean and Kingsmere lakes and on those waters in the recently added northern section of the park, namely, La Vallee, Burntwood, and Clearwater lakes with their tributary streams.

Detailed observations on possible spawning grounds and water temperature in Waskesiu lake were also obtained with a view to the experimental introduction of small-mouthed bass into this lake. While the mean temperatures and food conditions are not wholly favourable an experimental planting of adult bass and of fry was recommended. Kingsmere lake was found suitable for game trout and the experimental introduction of the "Kamloops" type was recommended for this lake and speckled trout for MacLennan river. The committee also suggested that additional efforts should be made towards the conservation of the present game fish fauna (1) by modification of the existing game laws to suit the needs of the park and (2) by a campaign for the education of sportsmen and visitors.

ANIMAL PARKS

BUFFALO PARK

Although grazing conditions in the park were poor as compared with other years, the animals were in good condition and came through the winter well. The following table shows the animals in the park on March 31, 1930:—

Buffalo.....	5,016
Elk.....	654
Moose.....	66
Mule deer.....	1,994
Antelope.....	1
Yak.....	33
Domestic cattle.....	13
Hybrid stock.....	20

Farming operations were carried on as usual. Early in April 3,600 bushels of oats were shipped to Banff and Jasper national parks. Due to strong winds and dry weather grain crops were very poor. Weather conditions were, however, good for hay. Approximately 1,500 tons were cut on the Ribstone meadow and 18 tons of rye grass taken off a plot at the farm which had been seeded down two years ago.

Owing to the rapid increase in the buffalo herd, 500 buffalo were slaughtered for sale. Fifty carcasses were reserved by the Department for native relief purposes in the North.

Fencing.—Fence repair work was carried on throughout the season and over 100 miles of fence were put in shape. In addition to this work a change was made in the location of the fence at the northwest corner of the park to include a portion of section 35, township 44, range 8, west of the Fourth Meridian in which there is good grazing. A change was made in the position of the Hardisty gate, and a short piece of fencing constructed near Jamieson lake for the convenience of riders when on the round-up.

Fire Protection.—Fireguards, both inside and outside the main fence, as well as cross guards were ploughed. Practically all this work was done by park teams. Additional hose was supplied for use at the farm buildings and improvements made at the hydrants for quicker service.

Roads.—Maintenance work was done on the new road from Wainwright to the Home Paddock entrance gate, and the old trails which had worn into deep ruts were repaired.

Buildings.—In the fall the park office was moved from the old location at the superintendent's residence to the new Federal Building in Wainwright. Extensions were made to the foreman's cottage and improvements to the riders' boarding house at the abattoir. A well was drilled in the winter quarters to provide water for the buffalo.

Permits.—Dry wood timber permits were issued to settlers living in the vicinity of the park for 175 cords, also for 4,500 green willow pickets.

Predatory Animals.—There was a marked decrease in the number of coyote in the park and most of those destroyed were affected with mange. Altogether nine were shot by the wardens.

Visitors.—During the season 18,753 people registered at the park. The numbers of visitors entering at three of the park gates were as follows:—

Wainwright gate (Home Paddock).....	15,978
Hardisty gate.....	1,666
Farm gate.....	1,109
Total.....	18,753

ELK ISLAND PARK

Visitors to Elk Island park totalled 22,611, which represented an increase of 3,656 over the registrations of the previous year. In addition to the fine herds of animals in the park the bathing beaches and picnic grounds afforded the tourist a wide diversity of entertainment. The buffalo herd was in splendid condition and the wardens reported an increase in moose, elk, and mule deer. During the season two animals—an elk and a moose—were killed for specimen purposes and presented to the museums at Banff and Ottawa. Animals in the park now number 716 buffalo, 398 moose, 500 elk, and 200 deer.

Repair work was carried on as usual. The main fence was put in good shape and all fireguards conditioned. Additional guards were ploughed along the west boundary for a distance of four miles. A lookout tower was erected west of Astotin lake and connected by telephone with park headquarters and the tower and headquarters of the Cooking Lake forest reserve.

Haying operations, owing to the dry season, were not extensive. One hundred and ten tons were stacked, which, with the large tonnage of hay carried over from the previous year, provided a supply for the year's feeding requirements.

Roads.—The roads in the park were maintained in good condition by use of the grader. Several culverts were replaced. The construction of the road from Sandy beach to the main gate was completed and several miles surfaced with gravel.

Wild Life.—Bird life showed an increase. Blue heron nest in numbers on Crane island and migratory birds are plentiful. Prairie chicken and partridge appear also to be on the increase. There was a marked absence of coyotes in the park, only one being killed during the season.

RECREATIONAL AREAS

POINT PEELE PARK

The season was an exceptional one so far as tourist travel was concerned. It is estimated that 20,800 cars entered the park carrying a total of 83,200 visitors. The number of campers who took out permits for less than a four days' stay was 446. Of these 120 were from Ontario and 326 from the United States. Camping permits for more than four days numbered 89; 50 from Ontario and 39 from the United States.

Wild Life.—Wild life was reported on the increase. Squirrel, raccoon, and muskrat were plentiful. Quail were about the same in numbers, while pheasant showed a marked increase. Migratory birds were never more plentiful. Wild duck—black, grey, and blue-bill—were present in thousands. A great many whistling swan were seen in the marshes, and during the spring and fall migrations of wild geese were abundant.

HISTORIC PARKS

FORT ANNE NATIONAL HISTORIC PARK

The total number of visitors to Fort Anne park for the calendar year was estimated at 18,000. Of these, 13,516 were shown through the museum, an increase of 2,126 over the record for 1928. Among the notable visitors were a party of ninety members of the Canadian Women's Press Club; the captain and seven other officers of the French warship *Aldabaran*; officers of H.M.S. *Cape-town*; Hon. William Phillips, United States Minister to Canada, and Mrs. Phillips; M. Carteron, the Consul General for France, and Madame Carteron; the Right Hon. Lord Pentland; and Mr. and Mrs. E. R. Warren, of Boston, Mass. Mrs. Warren is a direct descendant of Paul Mascarene, the officer who mounted the first British guard in Fort Anne on the taking of the place in 1710.

On July 3, a party from Central Canada numbering 180 visited the fort. The Raymond-Whitcomb Tourist Agencies in August brought 73 visitors. On September 3 there was an excursion of 94 persons, members of the Schuetzen Club of New York. The teachers and pupils from the Annapolis County Academy visited Fort Anne on three occasions in November and once in December.

Several interesting discoveries have been made in the fort grounds during the year. During a visit to the Canadian Archives at Ottawa in November, 1928, the Honorary Superintendent was able to examine some old pictures of Annapolis Royal, dated 1751, which showed a blockhouse about which nothing had locally been known. Photographs of the pictures were obtained and with their aid the site was discovered. After some digging the foundation of the blockhouse was revealed. On the War Office plan of the fort in the Provincial Museum at Halifax the blockhouse shown in the picture is plainly marked and also another one hitherto unknown east of the fort, the exact location of which it will require a surveyor to determine.

Through the agency of the Historical Association of Annapolis Royal, Fort Anne came into possession of a fine portrait in oils of Queen Anne. The canvas is 25 by 30 inches and the picture is enclosed in a valuable old English carved gold frame. Another valuable gift received from the same association was a water-colour picture of Lieutenant George Wedderburn, of the 76th Regiment, who was the last commandant of Fort Anne, leaving in 1854 when the place was finally abandoned as a military post.

Protection of Migratory Birds

In June last, amendments were made to the regulations based on the *Migratory Birds Convention Act*, following the receipt of suggestions from the different provincial game officers and the chief federal migratory bird officers. A number of changes were made throughout Canada. The close season for the following migratory game birds was extended for an additional period of three years: little brown, sandhill, and whooping crane, swan, curlew, greater and lesser yellow-legs, black-bellied and golden plover, and all shore birds, except Wilson's or jack-snipe and woodcock. It was provided that lying in wait with firearms, with or without decoys, for migratory birds, should be considered *prima facie* evidence of hunting. The daily bag limit for woodcock was reduced from ten to eight, and a seasonal bag limit placed upon this species in the provinces in which it occurs. In Nova Scotia, the season for duck and rail, and goose and brant was changed. In New Brunswick, the opening date for the shooting of Wilson's snipe and woodcock on the islands in the Grand Manan group was made to coincide with that for duck, goose, brant and rail, in that part of New Brunswick. In Ontario, the season for taking Wilson's snipe was made to coincide with that for duck, goose, brant, and rail. In the province of British Columbia, the use of decoys of any kind in the hunting of band-tailed pigeon was prohibited, and the special provision concerning the hour at which shooting might begin on the first day of the open season was changed.

The staff for enforcing the *Migratory Birds Convention Act* continues at the same strength and there has been complete co-operation with provincial game departments. In accordance with the original plan the enforcement of bird protection measures has been left largely in the hands of the provincial authorities, thus avoiding duplication.

Some hundreds of honorary game officers co-operated with the branch in enforcing the law, and in furnishing valuable information respecting bird conditions in their localities. Honorary officers were kept informed on bird protection subjects by a system of circular letters. The members of the Royal Canadian Mounted Police helped materially by enforcing the law and by conducting bird observations in various districts, and Dominion Fishery officers lent valuable assistance as well. A staff of officers was maintained in the Maritime Provinces for the enforcement of the migratory bird law. All members of the New Brunswick provincial police were appointed *ex officio* game officers under the *Migratory Birds Convention Act*.

Drought throughout a large part of the Prairie Provinces greatly affected water-bird life during 1929. In parts of Saskatchewan there was believed to be a reduction of nearly ninety per cent in the number of duck raised, and conditions were probably as bad in some other parts of the prairie breeding area.

In addition to his general duties, the Chief Federal Migratory Bird Officer or the provinces of Ontario and Quebec, with the aid of a staff of temporary assistants and the bird sanctuary caretakers, carried out valuable protection work with respect to the abundant sea-bird life on the north shore of the gulf of St. Lawrence in Quebec during the summer.

The Chief Federal Migratory Bird Officer for the western provinces, while devoting much time to co-operative work with the provincial game authorities, was occupied as well in supervising the sanctuaries and public shooting grounds in these provinces and in making inspections of lands reserved. The latter work was undertaken jointly by the province, the Dominion Lands Administration and this branch.

Ninety-one prosecutions were instituted by Dominion officers in connection with the enforcement of the *Migratory Birds Convention Act*. These resulted in 83 convictions. Prosecutions instituted by provincial officers are not included in this summary.

Oil Pollution.—The department has worked in conjunction with the Department of Marine and Fisheries respecting the loss of bird life by oil dumped from vessels in navigable waters, or reaching navigable waters in other ways, and all losses of bird life from oil have been referred to that department. Following the conference at Washington, in which Canada took part, a draft convention on oil pollution of the high seas was prepared, but no international agreement for control has yet been concluded.

Bird Censuses.—The investigation to learn the distribution and movements of waterfowl, and their fluctuation in numbers from year to year, undertaken by this branch and the United States Biological Survey, was continued and has resulted in valuable data being collected from hundreds of wildfowl observers. Bird censuses taken on Christmas day were made at many points by members of the various naturalists clubs and by the officers of this branch. At Ottawa twenty-four species were found. Bird censuses taken from year to year give a comparative idea of the distribution of bird life at a time when it is at its lowest ebb.

Permits and Licences.—Permits and licences were issued for the calendar year 1929 as follows:—

Collection of birds for scientific purposes.....	355
Possession of birds for propagating purposes.....	549
Capture of birds for propagating purposes.....	38
Destruction of certain birds when found to be seriously damaging agricultural or fishery interests.....	66
Permits allowing the shooting of predatory birds in bird sanctuaries, etc.....	11
Taking of birds for banding purposes.....	110
Practising taxidermy.....	70
Shooting of goose and brant in Shelburne, Queens and Halifax counties, Nova Scotia, in the open season provided by law.....	615

Investigations.—Mr. J. Dewey Soper, by the co-operation of this Branch and the North West Territories and Yukon Branch, in 1928 was sent to southwestern Baffin island, for the purpose of studying birds and mammals, and especially to find the breeding grounds of the blue goose. He was successful in locating these breeding grounds. Assistance was extended Mr. Soper in various ways. His report of the discovery has been published by the North West Territories and Yukon Branch.

Bird Banding.—The Branch worked in full co-operation with the United States Biological Survey in tracing and recording migrations of birds by banding. Nearly all the work is done by voluntary co-operators. The official records of bird-banding returns for Canada are kept in this branch. From January 1, 1929, to December 31, 1929, 16,634 records of birds banded by Canadian co-operators and 7,955 repeats and returns on birds already banded were received, an increase of 5,977 records over last year, and of 5,430 repeats and returns.

Sanctuaries for birds are increasing everywhere; small estates, villages, golf courses, air ports, and lakes with bordering marshes are being included. Action

to reserve sanctuaries in Canada would not be effective if sanctuaries were not reserved in the United States. Consequently, it is of great interest to Canadians to know that the work of establishing sanctuaries is progressing in that country.

Public Shooting Grounds.—Certain lands near Pitt lake, British Columbia, were reserved for public shooting-ground purposes.

Educational Work.—Various camps attended by young people were visited, and instruction given in bird protection and natural history subjects. Requests for lectures on wild-life conservation were received from more than forty organizations that conduct summer camps for young people. The total distribution of pamphlets amounted to 72,783. Publicity concerning the shooting season and other bird protection matters was obtained through the distribution of 44,710 posters, 22,783 copies of the *Migratory Birds Convention Act*, and 24,819 abstracts of the regulations under it. Circular letters regarding the changes in the regulations for the season 1929 were distributed to the press throughout Canada.

Numerous lectures on bird protection were given by members of the permanent staff, and lantern slides were furnished to the honorary game officers and others for lecture purposes. Addresses on birds and bird protection were delivered over the radio. The lantern slide library contains 5,365 slides covering 1,143 subjects, and showing 391 different species of birds. In all, 3,079 slides were loaned free of charge.

Bird-House Competitions.—Much interest has been shown in the building of bird-houses, and bird-house competitions have been held under various auspices throughout Canada.

Contact with Scientific and Conservation Organizations.—During the year the branch was represented at the following national and international meetings interested in the protection and conservation of wild life:—

September, 1929—Meeting of International Association of Game, Fish and Conservation Commissioners, at Minneapolis, Minnesota.

October, 1929—47th stated meeting of the American Ornithologists' Union, at Philadelphia, Pennsylvania.

December, 1929—National Game Conference of the American Game Protective Association at New York, N.Y.

December, 1929—Meeting of the Province of Quebec Association for the Protection of Fish and Game at Montreal, P.Q.

March, 1930—Organization meeting of the Canadian Game Protective Association, at Ottawa, Ontario.

Historic Sites and Monuments

During the past year, work in connection with the preservation and marking of historic sites or structures eminently national in character, was carried on. In addition a number of sites were acquired on which to erect memorials and a scheme of development formulated for some of the larger areas already controlled. The annual meeting of the Historic Sites and Monuments Board, which acts in an advisory capacity to the Department of the Interior regarding all historic matters, was held in Ottawa, when a large number of sites were reviewed and from these a selection made for attention in future years.

Since the inception of this work, in 1919, approximately 950 sites have been under consideration and from these the Board has selected 246 as being of national importance and recommended them to the Department for preservation or marking. The Board has also suggested the marking of the birth-places of a number of outstanding personages in Canadian history by tablets bearing appropriate inscriptions.

Sites Marked

In previous reports a summary of sites already marked, now numbering 150, will be found. During 1929-30 the following sites of national importance were marked and the services of important personages commemorated by the placing of tablets and the erection of monuments:—

Admiral d'Anville's Encampment, near Halifax, N.S.—A rubble-stone cairn, with a bronze tablet affixed, was erected on a plot of land donated by Mr. E. Clayton, at the intersection of the Old French Landing and Bedford roads, to mark the place of encampment of the formidable but storm-shattered expedition sent from France under the command of Duc d'Anville, in 1746, to recover Acadia.

Fort La Have, La Have, N.S.—A cairn with tablet was erected on the light-house reserve at Fort Point, La Have, to mark the site of the fort built by Isaac de Razilly, Lieutenant-Governor of Acadia, in 1632, from which headquarters he administered the colony.

Fort Jemseg, Lower Jemseg, N.B.—A cut-stone monument with tablet, enclosed by an iron fence, was erected on a small plot of land donated by Mr. F. C. Nevers, to mark the site of the fort built in 1659 by Col. Thomas Temple, Governor of Acadia. This was the first trading post established by the English on the Saint John river.

Battle of the Petitcodiac, Hillsborough, N.B.—A cut-stone monument with tablet was erected near the railway station at Hillsborough to commemorate the events associated with the engagement which took place in the vicinity in September, 1755, between British troops from Fort Beauséjour and a French force commanded by Charles Deschamps de Boishebert.

Major Gilfrid Studholme, St. John, N.B.—A cut-stone monument with tablet was erected on Fort Howe hill to commemorate the public services of Major Gilfrid Studholme, a notable figure in the early history of New Brunswick. Major Studholme built Fort Howe in 1778 and was its commander. He zealously assisted the settlement of United Empire Loyalists.

Battle of Chateauguay, Allan's Corners, P.Q.—A tablet was affixed to the granite monolith, which stands on the site, to commemorate the victory of a small Canadian force and a little band of Indians under the command of Lieut. Colonel Charles Michel de Salaberry over a large body of United States troops which attempted the invasion of Canada on October 26, 1813.

The Royal Navy, Ile-aux-Noix, P.Q.—A tablet was affixed to the gateway at the south entrance to Fort Lennox to perpetuate the memory of the services of the officers, seamen, and soldiers of the Royal Navy, Royal Marines and Provincial Marines, who fought in defence of Canada on lake Champlain in 1776-77 and 1812-14.

Battle at Montgomery's Creek, near St. Johns, P.Q.—A cairn with tablet was erected on the St. Johns Golf Club property, adjacent to the King's Highway, to commemorate the events associated with the battle of September 6, 1775, when Montgomery's invading army, surprised by a force of Mohawks and Canadian Indians, was compelled to re-embark and retire to Ile-aux-Noix.

Coteau-du-Lac, P.Q.—A cairn with tablet, was erected adjacent to the public road at Coteau-du-Lac to commemorate the early events associated with that place. A canal was constructed in 1779-80; later a blockhouse, and then a fort were built for its protection. These proved of valuable service during the wars of the American Revolution and of 1812. Coteau-du-Lac was for many years the chief port of entry for imports into Upper Canada.

First Railway in Canada, St. Johns. P.Q.—A tablet was affixed to the railway station at St. Johns to mark one terminal of the first railway in Canada which led originally to Laprairie and was constructed to connect lake Champlain with the river St. Lawrence. It was opened for traffic on July 21, 1836, by Lord Gosford.

Bishop Alexander Macdonell, St. Raphael, Ont.—A cut-stone monument with tablet was erected adjacent to the public highway in front of the parish church at St. Raphael West to perpetuate the memory of the Honorable and Right Reverend Alexander Macdonell, patriot, military chaplain, educator, and legislator who lived and laboured with success at this place for many years.

Niagara Portage Road, Stamford, Ont.—A stone monument with tablet was erected on Stamford village green, adjacent to the Portage road, to commemorate events associated with the Queenston-Chippawa portage road, opened by United Empire Loyalists in 1788. This was the principal route of travel and trade to the Upper Lakes region until the opening of the Welland canal in 1829, and the completion of railway lines in 1854.

Ridgeway Battlefield, Ridgeway, Ont.—A cairn with tablet, was erected on a plot of land, adjacent to the Garrison road, donated by the township of Bertie, to perpetuate the memory of the officers and men who fought there in defence of Canada against Fenian Raiders on June 2, 1866.

Starting Point Brock's Expedition, Port Dover, Ont.—A cairn with tablet was erected in Powell park to mark the spot from which Major General Isaac Brock set out with his army of three hundred men, on August 8, 1812, to relieve the invaded western frontier. His brilliant capture of Hull's army at Detroit, with a much smaller force, saved this province to the Empire and made Brock the hero of Upper Canada.

First Electric Telegraph, Toronto, Ont.—A tablet was affixed to the St. Lawrence market building, which now stands on the site of the old city hall of Toronto, to mark one terminal of Canada's first electric telegraph line, connecting Toronto with Hamilton, inaugurated December 19, 1846.

Fort Fork, Alberta.—A cairn with tablet was erected adjacent to the road allowance passing through Lot 19, Shaftesbury settlement, to mark the site of the fort built by Sir Alexander Mackenzie, on the east bank of the Peace river, in 1792, and from which he set out in the following year on his quest for the Western Sea. This first crossing of North America north of Mexico, stimulated the commercial development which saved a coast on the Pacific to Canada and the Empire.

The Last Spanish Exploration, Point Grey, B.C.—A cut-stone monument with tablet was erected on the British Columbia University grounds, between the waters of English bay and the Marine drive, in commemoration of the first friendly meeting of the British and the Spaniards in these waters. The British commander, Captain George Vancouver, established mutual confidence and exchanged information with the Spaniards, Galiano and Valdes, and they then continued the exploration together.

Fort Steele, B.C.—A cairn, with tablet, was erected on a plot of land donated by Mr. William A. Drayton, adjacent to the Fort Steele-Fernie highway, to mark the site of the first North West Mounted Police fort in British Columbia, built in 1887 by Superintendent Sam Steele. The presence of this force secured peace and order in the country at a critical time.

Preservation Work

At several larger sites preservation work and improvements were carried out.

Fort Cumberland (Beauséjour), N.B.—The earthworks were repaired, the entrance to the park improved, and a number of markers erected to indicate the various points of historic interest.

Louisbourg, N.S.—The several buildings, vacated by property owners whose rights had been purchased, were demolished and removed; the area fenced; the casemates cleaned out and repaired; and a road built and surfaced from the gateway to the headquarters building.

Fort Chambly, Chambly, P.Q.—Masonry and concrete retaining walls were erected along the river front; a dry stone wall was built along the north side; and the inner walls were repaired and pointed.

Fort Lennox, Ile-aux-Noix, P.Q.—Extensive repairs were made to the north bridge across the moat, improvements made to several buildings, and the moat cleaned.

Fort Wellington, Prescott, Ont.—The blockhouse was re-shingled and painted, the inner palisades repaired and other improvements made to the museum and grounds.

Acquisition of Sites

Arrangements for the acquisition or control of a number of sites recommended by the board were made.

Fort Monckton (Gaspéreau), N.B.—An additional area of two acres was purchased with a view to future development work.

Fort St. Peters, St. Peters, N.S.—The Department of Railways and Canals granted authority for the erection of a memorial on their reserve at St. Peters to mark the site of the fort and trading post built by Nicholas Denys, in 1650.

First Coal Mine in Cape Breton, Port Morien, N.S.—The Dominion Coal Company has donated a plot of land for the erection of a memorial to commemorate the events associated with the establishment by the French in 1720, of the first regular coal mining operations in America.

Fort Ste. Anne, Ste. Anne, N.S.—Mr. George E. Fader has donated a plot of land twenty-five feet square, adjacent to the Baddeck-Cape North highway, on which to erect a memorial to mark the site of the fort built there in 1629, for the protection of the French settlement.

First Atlantic Cable, North Sydney, N.S.—The Western Union Telegraph Company has granted permission to place a tablet on the outer wall of the company's cable building at North Sydney to commemorate the events associated with the laying of the first submarine telegraph cable in North America in 1856. This cable connected Cape Breton with Newfoundland.

Wolfe's Landing, Kennington Cove, N.S.—Mr. D. A. McInnis has donated a plot of land on Gabarus bay, with a right of way from the main road, for the erection of a memorial to mark the landing place of Brigadier General James Wolfe's brigade, on June 8, 1758.

First Export of Coal, Minto, N.B.—The Canadian Pacific Railway Company has granted permission for the placing of a memorial on their station grounds at Minto to commemorate the events associated with the discovery and mining of the first coal for export in Canada.

Chambly Canal, Chambly, P.Q.—The Department of Railways and Canals has granted permission for the erection of a memorial on the canal reserve at Chambly to commemorate the events associated with Chambly canal, which was first opened to navigation in 1843.

Benjamin Sulte, Three Rivers, P.Q.—The city of Three Rivers has granted permission for the erection of a bronze plaque at the entrance to the city hall to commemorate the public services of Benjamin Sulte, historian and poet.

First Geodetic Survey Station, Kingsmere, P.Q.—Mr. M. Mulvihill has donated a plot of land twenty-five feet square on King mountain on which to erect a memorial to mark the site of the first Geodetic Survey station in Canada established in 1905.

Opening of St. Lawrence River to All Nations, Quebec.—The Quebec Harbour Commission has granted permission to place a tablet on the wall of the waiting room at the Princess Louise docks, to commemorate the opening of the St. Lawrence to all nations, January, 1850.

Mattawa Portage, Mattawa, Ont.—The Women's Institute of Mattawa has granted permission for the erection of a memorial in a small park controlled by them at the intersection of Main and Water streets, to mark one of the principal portages of the historic canoe route from Montreal to lake Huron and the Northwest.

Southwold Earthworks, near St. Thomas, Ont.—An area of five acres, north of Talbot road, was purchased on which a memorial is to be erected to mark the site of an old Indian stronghold, a unique example of a double-walled aboriginal fort, the origin and antiquity of which remain unknown.

Dominion Lands Survey System, near Winnipeg.—Senator Aimé Bénéard and Mr. John T. Haig have donated a plot of land twenty-five feet square, adjacent to the Portage highway, at its intersection with the First Principal Meridian, on which to erect a memorial to mark the site of the first monument on the Dominion Lands Survey, July 10, 1871.

Simon Fraser, Musqueam, B.C.—The Provincial Government has granted permission for the erection of a memorial at Look-Out Point, adjacent to Marine drive, at the west end of the Musqueam Indian Reserve, to mark the place where Simon Fraser ended his adventurous and dangerous exploration of the Fraser river in July, 1808.

APPENDIX

Alpine Club of Canada*Report of the Secretary—Banff Club House, 1929*

Members of the Alpine Club at Banff had a most successful season. Special camp arrangements attracted an unusual number of visitors who made the club house their headquarters for climbs and expeditions in the neighbourhood. Five new cabins were built to replace the original tent houses, making thirteen cabins in all, comfortably furnished, available to members.

The club house was a centre of information for climbing enthusiasts in all mountain matters. Contributing factors to the delightful time spent by members were the improved transportation facilities and good roads, which greatly increased the radius in which one-day outings could be made from Banff.

The usual climbs of the surrounding peaks were made, including the east face of Castle mountain—which for the first time was scaled by a lady—and the peaks in the Fairholme range. One of the outstanding mountaineering feats was a first ascent of mount Sir Alexander by three members of the club from New York: Miss H. I. Buck, Dr. H. J. Gilmour and Mr. E. L. Woolf.

Those in attendance were drawn from England, Scotland, Australia, Germany, China, the United States, and Canada.

Report of the Secretary—Rogers Pass Camp, 1929

The twenty-fourth annual camp of the Alpine Club of Canada was held from July 15 to 31, 1929, in the Selkirk range. Camp was made on the site of the old railway village at Rogers pass in view of the peaks of the Hermit range. A subsidiary camp was pitched at the Hermit hut, about two thousand feet above the valley, and proved an excellent base for climbing. From here mounts Rogers, Tupper, Hermit, and Sifton were ascended by various parties.

The camp differed in several ways from those of other years. When the Connaught tunnel was opened the former railway right of way through the pass was turned into a road and a motor truck became a practical and much-used convenience, as it served the purpose of a passenger omnibus for those who wished to climb the peaks in the Sir Donald chain of mountains and the Asulkan and the Dawson ranges.

Only two days of bad weather were experienced out of the seventeen spent in camp. Of these one was devoted to the annual meeting. The camp fire meetings were greatly enjoyed and proved most interesting. Meetings were addressed by visitors from many parts of the world. One hundred and forty-two members were placed under canvas, including representatives of the Alpine Club, England; the French Alpine Club; the American Alpine Club; the Swiss Alpine Club; the Appalachian Mountain Club; the B.C. Mountaineering Club; the Sierra Club; the Mazamas; the Mountaineers; and the Royal Geographical Society.

The principal mountains climbed were mounts Tupper, Rogers, Avalanche, Eagle, Uto, Sir Donald, Cheops, Ursus Major, Sifton, Selwyn, and Hasler.

Those present were drawn from the following countries: Canada, England, and the United States.

V

WATER POWER AND RECLAMATION

REPORT OF THE DIRECTOR AND CHIEF ENGINEER OF WATER
POWER, J. T. JOHNSTON

INTRODUCTORY

The organization of this service remains the same as for previous years and the reader is referred in this connection to the Annual Report of the Department of the Interior for the fiscal year ended March 31, 1926.

INTERNATIONAL WATERWAY MATTERS

During the year, international waterway problems received continuous attention, appropriate action being taken from time to time in connection with the various matters arising.

The Convention and Protocol signed between Canada and the United States on January 2, 1929, providing for the construction of remedial works at Niagara falls for the preservation and enhancement of the scenic beauty and for the concurrent experimental withdrawal of water from the Niagara river during the winter or non-tourist season, for the purpose of testing the effectiveness of the remedial works, was ratified by Dominion Parliament on May 20, 1929. The Convention still awaits ratification by the United States Senate.

The suit of the complainant states of Wisconsin, Minnesota, Pennsylvania, and Ohio versus the Chicago Sanitary District before the United States Supreme Court, with reference to the diversion of water from the Great Lakes system through the Mississippi watershed, has been closely followed throughout the hearings. In compliance with the decision of the Supreme Court released on January 14, 1929, Special Master Charles Evans Hughes was instructed to make a further examination into the situation to determine the practical measures needed to give effect to the court's finding and to determine the period required for their completion. The Special Master was authorized to hear witnesses, and with all convenient speed to make a report of his conclusions and of a form of decree.

In compliance with these instructions, Special Master Hughes held a hearing in Chicago on March 25 to 29, 1929, with subsequent hearings at Washington on April 15 to 26. A further hearing was held on September 23 to 25. Oral argument before the Special Master was held October 2, 3, and 4, and the Special Master submitted his final report to the Supreme Court late in December, 1929.

At the expiration of the time to file exceptions to the Special Master's report, the Supreme Court set March 12, 1930, for the hearing of oral argument on the exceptions filed by the litigants. Oral argument was submitted before the court on March 12 and 13. The court had not up to March 31 handed down its decision.

The Lake of the Woods Convention between Canada and the United States executed on February 24, 1925, provides for the securing of a flowage easement up to elevation 1064 sea-level datum on the United States shore of lake of the Woods and accords to Canada the privilege of representation by counsel should the costs be determined by means of the usual judicial procedure in the United States. In accordance with this provision Canada has been represented by

counsel in the proceedings which have been taken before the United States Federal courts in Minnesota. Commissioners for the evaluation of the lands were appointed in August and September, 1928, hearings being held early in December, 1928, and in February and March, 1929, relative to the instructions given to the commissioners.

The awards of the commissioners in the first petition comprising about two hundred claims were filed with the United States District Court, District of Minnesota, Sixth Division, on May 4, 1929. These awards were excessive and appeals were filed by the Governments of the United States and Canada. The United States District Court appointed commissioners to appraise claims in the second petition at Fergus Falls, state of Minnesota, U.S.A., on May 28 at the regular sitting of the court after hearing argument by counsel. The awards of the second petition were filed in the court in August and as these awards were on the whole satisfactory, very few appeals were registered by the governments but a large number were appealed by the counsel for the landowners. On August 12 the Federal District Court appointed the commissioners to appraise the claims in the third petition. The awards were filed on November 27, 1929. A number of the awards were appealed both by the governments and by the landowners.

The Federal District Court, comprising two judges without a jury, sat to hear the appeals of ten test cases in the first and second petitions. The court proceedings opened on November 7 and closed on November 22, 1929. All parties, including the Dominion of Canada, were represented by counsel and took part in the oral and written argument before the court. Complete written briefs were filed. As yet the court has not handed down its decision.

The Lake of the Woods Convention also provided for a reference to the International Joint Commission of the question of storage in Rainy lake, and in the boundary waters above, and of the development of power in connection therewith. After extensive field and office investigatory work the interim report of the engineers to the commission, incorporating the basic data upon which the problem can be properly studied, has been published, and office investigatory work has been carried out in connection with the final report.

The international problem of the Roseau river which has been referred by the Governments of the United States and Canada to the International Joint Commission for investigation and report was under active consideration throughout the year. Following public hearings which were held at Roseau, Minnesota, on June 6, and at Vita, Manitoba, on June 7, the commission, in a report addressed to both governments, found that the flood protective works which were being constructed by the Dominion Department of Public Works on the Canadian side of the boundary would not have the effect of raising the natural level of the Roseau river on the United States side of the boundary. These works were subsequently proceeded with and were brought to completion on February 15, 1930. At the hearings, the department's interests were represented by counsel and by the District Chief Engineer of Manitoba.

In accordance with the other questions of the Roseau River Reference, arrangements were made for a topographic survey of certain portions of the watershed in Canada. This survey was carried out during the summer months and the information was compiled in the form of map-sheets during the following winter. All work has been closely co-ordinated with that being done on the United States side of the border.

The application of the West Kootenay Power and Light Company to the International Joint Commission for permission to construct and operate certain permanent works in and adjacent to the channel of the Kootenay river at Granite, British Columbia, for the purpose of storing water in, and regulating the outflow from, Kootenay lake was submitted to the commission in September, 1929.

Basic investigatory work had been under way for some time by this service with a view to analyzing the hydraulic features of the application, and the effect of the proposals on the water levels at the international boundary. The application was heard by the commission at Bonner's Ferry in the United States on November 6 and 7, 1929, at which hearing representations were made on behalf of the Canadian and United States interests involved. The department's interests were represented by the Director and by the District Chief Engineer of British Columbia. Initial construction work was authorized by the commission and further investigatory work was undertaken in the field, with a view to analyzing further the effects of the proposals upon the drainage interests above and below the international boundary. Following the completion of this work, a further hearing will be held by the commission.

Other problems have been active along the international boundary throughout the year, such as those arising with regard to lake Memphremagog levels, the proposed power development on the Pend d'Oreille river in British Columbia and the effect thereon of the Columbia River reclamation project in the United States. Following arrangements made between the Governments of Canada and the United States an investigation was carried out with respect to the establishment of international gauging stations on the rivers crossing the international boundary from lake of the Woods to the Pacific coast.

The various International Waterway Boards have functioned as usual throughout the year.

In accordance with the order issued on October 4, 1921, by the International Joint Commission in conformity with the provisions of the Boundary Waters Treaty of 1909, the measurement and apportionment of the stream flow in the St. Mary and Milk rivers and their tributaries in the provinces of Alberta and Saskatchewan and in the state of Montana, were continued throughout the past year by an engineer of this service in co-operation with an engineer of the United States Geological Survey. The report covering the year's operations has been prepared and submitted to the commission for review upon the occasion of its regular semi-annual meeting in April.

The Lake of the Woods Convention provided for two boards for the control of the lake levels and the outflow therefrom—the Canadian Board and the International Board. The Canadian Lake of the Woods Control Board has continued the regulation of lake of the Woods between elevations 1056 and 1061 sea-level datum, as elsewhere recorded in this report. The International Lake of the Woods Control Board is called upon to exercise certain responsibilities whenever the lake rises above elevation 1061 or falls below elevation 1056. On March 18, 1930, lake level was drawn below elevation 1056 and the rate of total discharge of water from the lake became subject to the approval of the International Board. On March 31, lake level had ponded at elevation 1055.82.

Under the Convention, the International Board is also charged with the responsibility of approving certain protective undertakings to be constructed on the United States shore of the lake. These works have been approved from time to time as completed.

The International Lake Superior Board of Control continued to exercise its responsibilities with regard to the regulation of lake Superior throughout the year. Records of discharge through the rapids, navigation canals, and power plants on both sides of the river, were systematically reported to the board. The calibration of the sluices of the control dam and of the other outlets was continued. The minimum mean monthly elevation of 602.43 occurred in the month of February, and the maximum of 602.90 occurred in the months of July and August, these stages being well within the limiting range of 602.1 to 603.6 as prescribed in the orders of the commission. The elevation of the lake for January 1, 1929, was 602.84, and the elevation for January 1, 1930,

was 602.41, a net lowering of 0.43 feet during the year. The mean discharge for the year was 65,539 cubic feet per second or about 10,400 c.f.s. less than the mean for 1928.

The International Niagara Board of Control continued its control over the diversions from the Niagara river for power purposes as permitted by Article 5 of the Boundary Waters Treaty. The board is in receipt of continuous hourly records of the withdrawal of water by all power stations on both sides of the river and the control exercised is such as to ensure that the limits of the diversion set forth in the treaty are not exceeded.

The International Massena Board of Control continued to exercise its supervision over the conditions obtaining with respect to the submerged weir in the South Sault channel of the St. Lawrence river and the regulation of flow through the Massena canal in accordance with the order of the International Joint Commission dated December 6, 1922. The board was in receipt of regular monthly reports showing the amount of water diverted and the power house performance from day to day. During the open water season of 1929 the maximum mean daily diversion reported was 25,040 second feet, the minimum 18,700 second feet. The mean daily diversion exceeded 25,000 second feet on one day only. The recorded monthly mean at Lock 21 varied from 201.60 to 203.16. The elevations at the lock were improved by the operation of the submerged weir, the increased height of water surface above natural conditions varying 0.55 to 0.73 feet, which is a decided improvement for navigation conditions.

The International St. Croix River Board of Control continued to exercise its supervision over the discharge of the St. Croix river past Grand Falls dam in accordance with the orders of the International Joint Commission dated November 9, 1915, and October 3, 1923. The board was in receipt of regular reports of the discharge of the river and of the water elevations above and below the Grand Falls dam. No abnormal conditions developed during the year. General satisfaction was expressed by responsible officers with regard to the supply of water on the river below, both for power and for the purposes of fishway operation.

WATER POWER

CANADIAN LAKE OF THE WOODS CONTROL BOARD

The Canadian Lake of the Woods Control Board continued to function throughout the year. The International Board is elsewhere referred to in this report. A complete history of the formation of these boards appears in chapter V of the Annual Report of the Department of the Interior for the fiscal year ended March 31, 1929.

Lake of the Woods Regulation.—During the fiscal year, the inflows to lake of the Woods were below normal and the board was chiefly concerned in conserving storage in order to be able to maintain a dependable rate of outflow for power purposes. Due to deficient precipitation and a high rate of evaporation, lake level was steadily drawn down from elevation 1059.75 on April 1, 1929, to elevation 1056.0 on March 17, 1930. By virtue of the provisions of the Lake of the Woods Convention, when lake level falls below this latter elevation the regulation of the outflow from the lake becomes subject to the approval of the International Lake of the Woods Control Board. Through the courtesy of the United States member of the International Board, arrangements were made to draw the lake level to elevation 1055.80 in order to ensure sufficient water for power purposes at the lake outlets and on the Winnipeg river below during the period preceding the spring break-up. On March 31, 1930, lake level was ponded at elevation 1055.82.

Throughout the fiscal year the board was indebted to the Department of Public Works for run-off records on Rainy and Namakan lakes, and to the Dominion Meteorological Service and the Weather Bureau, United States Department of Agriculture, for precipitation and temperature records at the numerous meteorological stations throughout the watershed.

Lac Seul Regulation.—The Lac Seul conservation dam was completed on May 1, 1919, and arrangements were made that until the matters of foreshore rights and protective works have been settled, the control of the level and out-flow of the lake would remain in the hands of the Ontario Government. During the fiscal year the control of the lake has been in complete co-ordination with the control exercised by the board over the regulation of lake of the Woods.

WATER POWER REGULATIONS AND LEGAL RESEARCH

The Dominion Water Power Regulations were amended by Order in Council of December 3, 1929, which replaced the current wages clause introduced into the regulations in 1928 by a fair wages clause requiring that fair and reasonable rates of pay and hours of labour, to the satisfaction of the Minister of Labour, are to be in force in the construction, alteration, extension, maintenance and operation of the works authorized by a water-power licence. An interim licence under the regulations was issued authorizing the development of the Slave Falls site on the Winnipeg river in Manitoba. The study of Dominion and provincial legislation and jurisprudence relating to the use of water has been continued.

BRITISH COLUMBIA ADMINISTRATION

Water rights granted by the province of British Columbia in the Railway Belt under the provisions of the *Railway Belt Water Act* have been examined for the protection of Dominion interests, and the District Chief Engineer at Vancouver has kept in close touch with the construction operations of the Western Power Company of Canada at Ruskin, on the Stave river, and has made a final inspection of the diversion tunnel and power-house of the Burrard Power Company's Alouette Lake development. Applications for water records for the benefit of Indian reserves in the various parts of the province have been prepared on behalf of the Department of Indian Affairs, and surveys and investigations made in connection with securing water licences and in support of Indian claims to the use of water.

ENGINEERING CO-OPERATION WITH THE DEPARTMENT OF INDIAN AFFAIRS

In Ontario a report was made on repairs necessary at the power dam of the Indian school near McIntosh, and the water supply and sewage disposal plants for the Cecilia Jeffrey Indian school near Kenora were constructed at a cost of \$12,285. In Manitoba reports were made on water supply and sewage systems for Indian schools near Brandon and Birtle, and repairs made to the existing systems at the Brandon school amounting to about \$2,800.

In Saskatchewan additional machinery costing \$1,003 was installed in connection with the water supply of the Onion Lake Indian school, and repairs made to the water supply and sewage systems at Ile à la Crosse hospital at a cost of about \$2,200. In Alberta reports were made on improved water supply for existing schools at St. Bruno on Lesser Slave lake, and at Edmonton, and reports prepared on a site for a new school to be erected near St. Paul de Metis. A deep well was drilled near the site selected at a cost of \$3,398.

In British Columbia a large number of investigations were made in all parts of the province and the local staff of the service also supervised the construction of important improvements made in connection with Indian reserves,

villages and schools. The investigations carried out numbered 32, of which 9 were for irrigation projects and improvements; water supply, 13; electric light and power, 2; water-rights, 2; miscellaneous, 6. There were 21 separate construction projects carried out under supervision, classified as follows: irrigation, 16; water supply, 3; sewage disposal, 1; electric light and power, 1. The total cost of these improvements was about \$44,000.

A more detailed description of this co-operative work will be found in the separate report of this service.

WATER RESOURCES INDEX INVENTORY

The Index Inventory system for recording and collating the water resources data of the Dominion has been in actual use for a number of years and has provided a most efficient method for the referencing, analysis, standardization, and filing of all data relating to the subject of water resources. A detailed description of the system appeared in the annual report for 1916-17 and in the combined reports for the years 1917-18-19.

The system has been applied to practically all phases of the work carried on by the service, among the more outstanding of which may be mentioned the complete census of developed water-power, the analysis of central electric station activities, undeveloped water-power resources, stream measurement activities, and storage investigations.

This work has been largely carried on in co-operation with provincial organizations, notably the Hydro-Electric Power Commission of Ontario, the Quebec Streams Commission, the British Columbia Water Rights Branch, the Nova Scotia Power Commission, and the New Brunswick Electric Power Commission. The data compiled are being continually revised in accordance with the most up-to-date information and, resulting from a number of years of effort, a very large amount of information in standardized form is now available.

WATER-POWER RESOURCES OF CANADA

The most recent analysis places the available water-power throughout the Dominion at 20,347,400 horse-power for conditions of ordinary minimum flow and 33,617,200 horse-power ordinarily available for six months of the year. This analysis takes account of every known rapid, fall, and power site, but cannot be taken as final because there are, particularly on the northern rivers, rapids and falls concerning which there are insufficient data upon which to base estimates of power. In addition, there are opportunities of securing economic heads on rivers of gradual gradient, or possible storage and diversion opportunities, which cannot be appraised until detailed field surveys have been made. Nevertheless, the figures given above probably approximate fairly closely the power available under the conditions of flow stated.

The power ordinarily available for six months of the year may be taken as indicating approximately the combined commercial capacities of the various sites, on the assumption that any deficiency during the remaining six months can be made up from the storage of excess waters, or by the installation of auxiliary fuel power equipment. That this assumption is quite conservative is demonstrated by a study of the power development which has already taken place in Canada, for this reveals that the turbines actually installed in Canada exceed by 30 per cent the six months' power capacity of the developed sites and this installation has already proved to be good commercial practice. If, therefore, the turbine installation continues at the same ratio the present recorded resources will justify an ultimate installation of about 43,700,000 horse-power.

On January 1, 1930, the total turbine installation in Canada had reached 5,727,162 horse-power which, according to the argument just outlined, means that the installation amounts to a little more than 13 per cent of the ultimate capacity and already represents a capital investment of almost \$1,302,000,000 for generation, transmission, and distribution.

An analysis of the present installation indicates that:—

- (1) 4,817,486 horse-power, or 84.1 per cent of the total, is installed in central electric stations for general distribution.
- (2) 578,826 horse-power, or 10.1 per cent, is installed in pulp and paper mills which, in addition, use power purchased from the central electric stations to the extent of approximately 860,000 horse-power, making a total of about 1,439,000 horse-power used in this industry.
- (3) 330,850 horse-power, or 5.8 per cent, is installed in general industrial enterprise, for electro-chemical reduction, mining, manufacturing, lumbering, flour milling and other purposes.

The installation of 584 turbine horse-power per 1,000 population compares very favourably with the installation in other countries and, in an age where the use of mechanical power in industry so largely affects the value of output per worker, makes a substantial contribution to the prosperity of the Dominion as a whole.

The year 1929 saw no slackening in the water-power field; approximately 378,000 horse-power of new installation was brought into operation, whilst the installation of over 3,000,000 horse-power is in active prospect, of which more than one-half is actually under construction. Of the new installation 36,000 horse-power was accounted for by the Ghost development on the Bow river, completed by the Calgary Power Company under interim licence from this department, whilst of the three other developments under construction in the Prairie Provinces under similar licences, that on the Churchill river in Saskatchewan is nearly completed and construction operations at Seven Sisters and Slave Falls on the Winnipeg river are now in full swing.

CENSUS OF THE CENTRAL ELECTRIC STATION INDUSTRY

The generation of electricity for public distribution through the medium of the central electric station industry constitutes the leading use to which Canada's hydraulic development is put. In the year 1900, when electricity was just beginning to come into common use, some 32 per cent of the Dominion hydraulic installation was in central electric stations. Ten years later the percentage had almost doubled (61 per cent), while by 1920 over 71 per cent was devoted to this purpose, growing to over 84 per cent by the end of the year 1929. A number of factors contribute to this continual growth, notably the extensive economic radius of modern electrical transmission combined with the fortunate location of water-powers in relation to centres of population and industry without adequate local fuel supplies. The special adaption of hydraulic power to the operation of central electric stations is emphasized by the fact that for the calendar year 1928, the latest for which definite figures are available, over 98.5 per cent of the electricity generated for sale in Canada originated in the energy of her waterfalls.

The foregoing facts are indicative of the close relationship existing between water-power development and the central electric station industry and are stated as premising the necessity of the annual revision of all basic data relating to the central station industry as a contributory medium to maintaining up-to-date records of our water-power resources.

This revision is made through the agency of the census of the central electric station industry conducted annually by this service in co-operation with the Dominion Bureau of Statistics of the Department of Trade and Commerce, the assistance of the Hydro-Electric Power Commission of Ontario, the Quebec Streams Commission, the New Brunswick Electric Power Commission, the Nova Scotia Power Commission, the Manitoba Power Commission, and other federal and provincial authorities.

The statistics resulting from this annual census are presented to the public through the medium of the annual reports of the Bureau of Statistics, while at longer intervals, depending upon the varying conditions in the industry, a complete directory showing the investment in plant and equipment, installation, mechanical equipment, service, power for sale, rates, and transportation facilities of the individual central electric stations dealt with collectively in the statistical reports of the Census Bureau, is compiled and issued by this service. The first edition of this Directory was issued in 1919 in order to meet the frequent inquiries for detailed information relative to power supply, and the demand for copies was so great that the issue was soon exhausted. Rapidly changing conditions in the industry, and repeated requests for the publication of a new edition, led to a revised edition being issued as of November 1, 1922. Even greater changes taking place in the industry in the period since the publication of the second Directory and a growing demand for up-to-date information, necessitated the issuance of a third edition of the Directory in May, 1929.

DOMINION HYDROMETRIC SURVEY

The Dominion Hydrometric Survey embraces stream measurement work throughout Canada. The records are brought together in one central agency, which attends to the compilation and dissemination of stream flow data, and the survey operates efficiently both as regards office administration and field operations.

In the Prairie Provinces the survey is the direct responsibility of the Dominion Government and in the other provinces the survey is carried on by the Dominion Government under co-operative agreements with the provinces concerned. The Dominion is divided into major drainage divisions, which, together with the district office or offices in charge, are as follows: Pacific drainage, Vancouver; Arctic and Western Hudson Bay drainage, Calgary and Winnipeg; St. Lawrence and Southern Hudson Bay drainage, Ottawa and Montreal; Atlantic drainage, Halifax.

The uses to which the records are put are primarily in connection with water-power development and irrigation projects, and the rapid strides which have taken place in the hydro-electric field are due in no small part to the detailed and extensive records of the regimen of the numerous lakes and rivers of the country which have been made available, by the Dominion Hydrometric Survey, assisted by the voluntary co-operation of the provinces, of private corporations, and of numerous individuals.

Run-off Conditions in Canada.—As set forth in detail in the annual reports of the District Chief Engineers, the average run-off for the year has been generally below average in the Pacific, Arctic and Western Hudson Bay, Southern Hudson Bay, and Atlantic drainages, and above normal in the St. Lawrence drainage.

In the Pacific drainage typical stations showed a range in run-off for the fiscal year from 78 per cent of the long term mean in Bridge river in the Central Fraser River basin to 84 per cent of the long term mean in the Kootenay river at Wardner.

In the Arctic and Western Hudson Bay drainage, typical stations showed a range in run-off for the fiscal year from 6 per cent of the long term mean in Moosejaw creek in southeastern Saskatchewan, to 92 per cent of the long term mean in the Elbow river in central Alberta. In the first week of June torrential rains over the foot-hill areas west of Calgary caused serious flood conditions, and new maximum discharges were recorded in the Bow, Elbow, and Ghost rivers.

In the St. Lawrence and Southern Hudson Bay drainage, typical stations showed a range in run-off for the fiscal year from 88 per cent of the long term mean in the North Maganatawan river, at Burk's Falls, Ontario, to 126 per cent of the long term mean in the Grand river at Galt, Ontario.

In the Atlantic drainage, typical stations showed a range in run-off for the fiscal year from 93 per cent of the long term mean in the Miramichi river in northern New Brunswick, to 107 per cent of the long term mean in the St. Mary river in eastern Nova Scotia.

POWER AND STORAGE INVESTIGATION

During the year only such power and storage investigations involving field studies were undertaken, as were made necessary by requests of organizations receiving co-operative assistance from the service, or by reason of special circumstances. Office studies were continued in the re-analysis and keeping up to date of the records of undeveloped and developed water-power resources in all parts of the Dominion.

In British Columbia an intensive study of the hydraulic features of the Kootenay drainage from the international boundary to a point several miles below Nelson, was continued with special attention being given to the flow in the west arm of Kootenay lake. Co-operative investigations were carried out with a number of hydro-electric organizations in connection with power possibilities on such rivers as the Bridge, Shuswap, Nascall, Dean, Kootenay, Elk, Bull, and a number of streams in the Prince Rupert district, and also on the Campbell and Nimpkish rivers on Vancouver Island. Co-operation was also continued with the city of Vancouver in connection with nearby power streams, with the Greater Vancouver Water District in studies of a metropolitan domestic water supply for the Greater Vancouver area, and with the Vancouver and Districts Joint Sewerage and Drainage Board's investigations. Hydraulic studies were continued of the Fraser river at Hell's Gate, and of the Bridge River canyon at the request of the Department of Marine and Fisheries.

In Alberta a resident inspecting engineer was maintained throughout the construction of the Ghost development on the Bow river, undertaken by the Calgary Power Company under the terms of an interim licence issued by the department. Inspections were made of a number of extensions to the system of the Calgary Power Company in the territory between Calgary and Edmonton, and co-operation was also afforded the company in the investigation of power and reservoir sites in the Bow river basin. Responsibility for the operation of the Lake Minnewanka storage during the filling season was again assumed by the department with satisfactory results.

In the Northwest Territories co-operation was afforded private power interests in the investigation of power possibilities of the Hay, Taltson, and other rivers flowing into Great Slave lake.

In Saskatchewan a resident inspecting engineer was placed during the month of June on the construction of the Island Falls development on the Churchill river, being carried out by the Churchill River Power Company Limited under the terms of an interim licence issued by the department.

In Manitoba, resident inspecting engineers were allocated to look after the department's interests under the terms of interim licences, to develop power at two locations on the Winnipeg river; the first at the Seven Sisters site where construction is being carried out by the Northwestern Power Company Limited, and the second at Slave Falls where the city of Winnipeg is constructing its second development on the river. On the Roseau river a profile was made from the international boundary downstream to the vicinity of Dominion City and other topographical and hydraulic information secured in connection with the reference now before the International Joint Commission.

In Ontario a field survey, using vertical air photographs for the plotting of contours, was made of the Winnipeg river between Keewatin and Boundary falls in connection with the securing of a flowage easement, rendered necessary to permit of probable flood conditions arising from the regulation of the lake of the Woods. Assistance was again afforded the International Lake Superior Board of Control in recalibrating the discharge through the dams at Sault Ste. Marie, and on the Niagara River field, and office studies were pursued in conformity with, and in continuation of, the investigation of the Special International Niagara Board appointed to report upon the preservation of the scenic beauty of Niagara falls. Hydraulic investigations were made of the Abitibi river in the vicinity of the canyon in co-operation with the Abitibi Power and Paper Company, and work was continued in co-operation with the Ontario authorities in the re-analysis of the developed and undeveloped water-power resources of the province, in preparation for the publication of a revised list of these resources.

In Quebec special investigations were made on the St. Maurice river in co-operation with the Shawinigan Water and Power Company, in connection with storage and power development involving a future installation of over 1,000,000 horse-power. Special hydraulic work was also undertaken in co-operation with the Beauharnois Power Company in determining the discharge capacity of the St. Lawrence River channels at Valleyfield. Work was continued in systematically keeping up to date the figures of developed and undeveloped water-power resources of the province.

In New Brunswick, preliminary investigations were made for the towns of Newcastle and Chatham of the cost of developing power at the White Rapids site on the Miramichi river, and special hydraulic studies were carried out at the Great Falls plant of the Bathurst Power and Paper Company on the Nipisiguit river, from which convenient rating curves were prepared.

In Prince Edward Island an investigation was made of a proposed development on the Dunk river near tidewater, with a view to augmenting the supply of power to the town of Summerside; also field studies were made and a report prepared for the village of O'Leary in connection with a proposal to develop power on Mill river.

In Nova Scotia special investigations were made for the Nova Scotia Power Commission in connection with the North East river below Pockwock lake, and the proposed Ingram River-St. Margaret's Bay diversion. Studies were also made, for other organizations, of the Sackville and Herbert rivers. Assistance was given to the Avon River Power Company in connection with its development on the Black river, and to the Chester Light and Power Company in the installation of a new unit in its plant situated on the East river near Chester.

IRRIGATION

Climatic conditions during the early part of the year 1929 were very favourable from an agricultural standpoint, precipitation being sufficient to render soil conditions satisfactory for seeding and germination. Throughout

July and August high temperatures and lack of rainfall caused conditions unfavourable to the growth of non-irrigated crops. Ideal harvesting conditions prevailed until snow fell in early November.

Reclassification of lands in the major projects was continued together with studies of more efficient irrigation methods, including seepage and alkali problems, investigations at the Brooks "Duty of Water" Experimental Station and co-operative studies with the Department of Agriculture. Data were secured relative to the influence of commercial fertilizers on the water requirements, maturity and quality of sugar beets, grains, and alfalfa.

WATER ADMINISTRATION

During the calendar year 1929 there were 36 water licences issued under the provisions of the Irrigation Act and 100 applications for such licences were received. Fur-farming licences to the number of 172 were granted to the provinces of Alberta and Saskatchewan for the use of lakes and other bodies of water for fur-farming purposes, and 63 additional applications for such rights were received. At the end of the year there were 1,062 water licences, 348 fur-farming licences, 22 temporary permits, and 169 authorizations recorded in the department with, in addition, 230 projects under investigation as well as 465 applications for fur-farming privileges.

INSPECTION WORK

Routine field work in connection with the administration of the Irrigation Act, comprising investigations of new applications, surveys, preparation of plans and inspection of operating projects, was continued, together with canal and stream measurements and the study of seepage losses. Field engineers engaged on this work inspected 621 established projects, investigated and surveyed 70 new projects, made 2,084 gaugings of stream and canal discharge, and carried out the usual annual inspections of the major projects and irrigation districts.

GENERAL RIVER CONTROL

Field investigations were made and reports submitted as to flood conditions on the Elbow, Bow, and Highwood rivers. The run-off occurred during the latter part of May and early June and little trouble with floods was experienced after that period.

MAJOR IRRIGATION PROJECTS

Canadian Pacific Railway, Western Section.—During the season 37,390 acres were irrigated, a considerable increase over the previous season. The total cropped area was 223,900 acres, producing crops valued at \$1,707,500, based on the average values in the irrigation districts and representing a per acre return of \$7.63; 17,000 acres of irrigated land were seeded to wheat and produced an average of 10.7 bushels per acre.

Canadian Pacific Railway, Eastern Section.—The acreage irrigated during the season was 78,610, being an increase over the previous season of some 32,930 acres. The total cropped irrigable area was 70,590 acres, of which 34,750 acres were seeded to wheat. No crop returns are available for 1929.

Canadian Pacific Railway, Lethbridge Section.—The irrigated acreage in crop was 18,650, while the total cropped area was 57,850 acres. The total return from the cropped area was \$1,977,300. The major crop was wheat, which represented 58 per cent of the cropped area and produced an average of 28.8 bushels per acre on the irrigated land and 26.4 bushels per acre on the non-irrigated area.

Taber Irrigation District.—The area actually irrigated was 10,090 acres, an increase over the previous season of some 6,920 acres. The total cropped area was 19,900 acres, producing \$606,682, or a per acre return of \$30.48. The principal crop was wheat, representing 46 per cent of the cropped area on irrigable land. The sugar beet area was 3,520 acres, an increase over the previous season of 1,250 acres. The average yield was 8.1 tons per acre and the saccharine content of the beets from all areas averaged 18.2 per cent. The guaranteed price for this crop by the sugar company is \$7.50 per ton.

Canada Land and Irrigation Company.—This company disposed of 1,500 acres during the year and reclassified an additional 6,400 acres. The total area of irrigable land sold is approximately 29,700 acres and, with the 4,500 acres of irrigable land in the New West District, makes a total of 34,200 acres served with water by the company. The acreage irrigated was 25,910 acres, an increase over the previous season of 10,230 acres. The total cropped area was 24,145 acres, producing \$501,240, or equal to a per acre return of \$20.75. The area in wheat was 18,110 acres, producing 321,480 bushels, or 17.7 bushels per acre.

New West Irrigation District.—The area irrigated in this district was 3,180 acres and the total area under crop was 4,180 acres, producing \$59,190, or a per acre return of \$14.16. The major crop was wheat, which represented 80 per cent of the total irrigable area, and yielded an average of 11.6 bushels per acre.

Lethbridge Northern Irrigation District.—An area of 61,230 acres was irrigated in 1929, an increase of 27,790 acres over that served in 1928. The total cropped irrigable area was 61,230 acres, producing \$1,800,000, or a per acre return of \$29.40. The wheat crop amounted to 1,700,000 bushels. No detailed crop census was made during the past season and the above figures were estimated by the district officials. There were thirty new settlers taking up 4,800 acres of land.

United Irrigation District.—The area irrigated was 3,100 acres, while the total cropped area was 29,570 acres, producing \$723,666, or a per acre return of \$24.45. On the irrigated land the area in wheat was 172 acres, producing 5,415 bushels, or a per acre return of 31.4 bushels. The area in wheat on land not irrigated was 20,260 acres, yielding a per acre return of 21.9 bushels.

Magrath Irrigation District.—Some 4,000 acres, or 57.3 per cent of the total irrigable area, was served with water in 1929, but no crop returns are available from this district.

Raymond Irrigation District.—No crop census returns have been submitted by this district, which is supplied with water through the works of the Canadian Pacific Railway Company's Lethbridge section. This (1929) was the third year of operation and the total irrigable area in this district is some 15,130 acres.

Little Bow Irrigation District.—This district, comprising a number of small individual pumping units, diverts water from the Highwood river at the town of High River. The diversion works connecting the Highwood river with the Little Bow river were constructed in 1923, but to date none of the individual schemes have been installed.

Mountain View Irrigation District.—Authorization for the construction of the works was issued in June, 1925, and, although work is proceeding, the project has not yet been completed.

ALKALI TEST PLOTS AT MAPLE CREEK, SASKATCHEWAN

These experimental plots have been carried on for eight years to obtain some reliable data regarding the effect of irrigation on heavy soils with high alkali content. It is proposed to continue the experiments over a further period of two years. No appreciable change has appeared in the fertility of the soil since the inception of this investigation. Results to date in growing wheat have not been satisfactory, but the existing data indicate that alfalfa will in time build up a soil suitable for wheat. At no time has alkali appeared on the surface of the plots.

DUTY OF WATER INVESTIGATIONS

The new projects started on the Brooks "Duty of Water" Experimental Station in 1928 were continued in 1929. The irrigation experiments included time of irrigation and seasonal use of water studies with wheat, oats, barley, corn, sugar beets, potatoes, sweet clover and alfalfa; total water requirements of sugar beets, beans, alfalfa seed and fall wheat; a comparative study of three soil improvement crops including alfalfa, red clover, and sweet clover; super-phosphate tests with wheat and several fertilizer tests with beans, alfalfa seed, corn, and sugar beets. The main controlled factor in these tests was moisture, either natural or applied by irrigation, and in some cases rotation received consideration. Rainfall in this district, except for the early part of the season, was scanty, and the crops were greatly benefited by the application of irrigation water.

A complete report of the 1929 irrigation investigations at Brooks is contained in a separate report of this service.

IRRIGATION EXTENSION WORK

Extension work among the sugar-beet growers of southern Alberta was carried on to secure a more economical use of irrigation water. In each district from three to five beet moisture tests were made every week or ten days during the growing season. At the conclusion of each test or inspection trip, the data secured relative to moisture conditions and irrigation requirements of each field were supplied to sugar company officials, project managers, and beet growers. This information was also published in the local newspapers. The results obtained from this work in 1929 were very encouraging, more farmers each year following the recommendations made as a result of these periodical soil moisture observations. A larger proportion of the beet acreage was irrigated during 1929 than in other years. The summer of 1929 was the driest since the sugar factory has been in operation, but the tonnage harvested was approximately 50 per cent greater than that of the previous year.

DRAINAGE SURVEYS AND INVESTIGATIONS

Under the provisions of the Irrigation Act the control of the surface waters in the provinces of Alberta and Saskatchewan and in the northern part of Manitoba is vested in the Crown in the right of the Dominion. Likewise the unalienated lands in these provinces are under Dominion control. On the other hand, the control of drainage is the responsibility of the provinces. To avoid the complications which were inevitable in the attempt to administer drainage under such conditions of divided jurisdiction, the provinces of Alberta and Saskatchewan entered into a drainage agreement in 1917 with the Dominion Government whereby the procedure looking to the development of drainage

schemes and the purchase of Dominion land reclaimed thereby was greatly simplified. This agreement was subsequently ratified and implemented by the reclamation acts and the drainage regulations of the three governments affected.

For the purpose of administration, drainage is dealt with under three major divisions, viz., small or private schemes, provincial, and Dominion schemes.

SMALL PROJECTS

In Alberta and Saskatchewan settlers may undertake drainage schemes where the area included does not exceed 1,280 acres and when the estimated cost is not in excess of \$5,000. The Department of the Interior furnishes the necessary engineering service free of charge. Sales of reclaimed Dominion land are made at the minimum rate of \$1 per acre. The settlers assume the cost of the reclamation works.

The year 1929 was exceptionally dry and conditions were therefore very favourable for construction work, but unfortunately, some settlers whose schemes had not been completed in accordance with the plans filed, erroneously considered that the required degree of reclamation had been obtained following the temporary lowering of the water-table due to subnormal precipitation conditions, and did not carry out the further necessary work.

Satisfactory crops were harvested on the reclaimed lands, 6,000 tons of hay and fodder being obtained from the schemes in the vicinity of Edmonton, Alberta.

During the year 74 small schemes were inspected, 24 new applications for schemes dealt with, 5 schemes authorized, 2 sales of Dominion lands made, and 15 applications cancelled.

LOW WATER LAKE DRAINAGE PROJECT

The Low Water Lake drainage project, comprising 7,840 acres, situated in townships 50 and 51, ranges 4 and 5, west of the 5th meridian, in Alberta, was authorized prior to 1917, which accounts for the fact that as a private scheme it exceeds the existing size limitation with regard to such schemes. During the past year ten miles of catch-water ditches were constructed in connection with this project, for the purpose of intercepting drainage water from the tributary drainage basin, and preventing the reflooding of the former lake bed which was unwatered several years ago. Thus, pending the completion of additional drainage works, about 1,500 acres of land are protected to a considerable extent and rendered productive.

PROVINCIAL PROJECTS

These drainage schemes are generally quite large and affect a considerable number of settlers. They are organized under the provincial drainage acts and comprise districts in which most of the land affected is privately owned. The construction funds are raised by the sale of debentures which are secured by the assets of the settlers whose lands are included. The debentures are retired ultimately by a fund realized through annual contributions in the form of drainage taxes by the settlers in the scheme. The taxes are proportionate to the benefits resulting to the lands through drainage.

Dominion lands reclaimed by these schemes are sold to the provinces at the rate of \$1 per acre. These lands are resold and the proceeds applied to reduce the drainage taxes.

In Alberta five such schemes have been carried out, while in Saskatchewan twenty-six have been completed.

Owing to the dry conditions of the past year, there was little demand for comprehensive drainage. In Saskatchewan, however, Mildred Drainage District No. 29 was completed at a cost of \$11,000, and the Yellow Grass Drainage District ditches were cleaned out and improved at a cost of \$50,000. The

possibility of forming a provincial drainage district in the vicinity of Kronau, Saskatchewan, was investigated, but it was found not to be economically feasible. Apart from the usual maintenance work in connection with the existing schemes, no new provincial projects were carried out in Alberta.

DOMINION PROJECTS

When more than 50 per cent of the area in a proposed scheme is unalienated land the Dominion Government may undertake the drainage work. In such cases the entire cost of the project is borne in the first instance by the Dominion, the cost being recouped subsequently by the sale of the reclaimed Dominion lands. One scheme was carried out some years ago in the province of Saskatchewan. During the past year no new projects of this character were undertaken.

MANITOBA DAIRY FARMS LIMITED

There is no drainage agreement between the Dominion and the province of Manitoba. Any schemes in Manitoba, affecting Dominion interests, are dealt with by direct negotiations between the two Governments.

Western Project.—The Manitoba Dairy Farms Limited obtained a lease in 1927 of 9,700 acres of Dominion land in townships 4 and 5, range 9, east of the Principal Meridian, for reclamation by drainage. During the past year the company constructed additional ditches and carried on operations in connection with the clearing of the reclaimed land. Inspections of the project were made from time to time by engineers of the department in conjunction with officers of the provincial Government.

Eastern Project.—This scheme, situated in townships 3 to 10, ranges 9 to 14, east of the Principal Meridian, is still in the preliminary stage and has not yet been authorized by the provincial and Dominion governments.

ROSEAU RIVER FLOOD PREVENTION AND RECLAMATION PROJECT

With the object of devising a scheme to prevent flooding and to furnish adequate drainage facilities in the Roseau River drainage basin in Canada, a field investigation was carried out in the season of 1929 in the area contained in townships 1 to 3, ranges 6 to 14, east of the Principal Meridian. Topographical data were obtained, levels run for 967 miles and 81 square miles plane-tabled. Soundings were taken of all swamps affected, hydrometric records systematically continued, and soil samples collected from the lands susceptible of reclamation. Numerous cross sections were made of the Roseau river between the international boundary and its mouth. Maps of the area investigated are now under preparation and will show, in addition to the principal physical features and the limits of the watershed, contours to two- and five-foot intervals, the former for the lands subject to direct flooding from the Roseau river. When the maps are completed flood remedial and drainage schemes will be projected and designs and cost data prepared in detail.

FUR FARMING

Agreement was reached between the provinces of Alberta and Saskatchewan and the federal Government as the result of which vacant and available Dominion lands containing marsh and water areas suitable for fur-farming purposes are leased to these provinces free of charge. These lands then become available for re-leasing by the provinces under their regulations in that regard. During the past year ninety-four leases were issued by the department for an area of 33,346 acres. The total area covered by the leases issued to date is 184,930 acres.

VI

NORTH WEST TERRITORIES AND YUKON

REPORT OF THE DIRECTOR, O. S. FINNIE

GENERAL

Not since the days of the Klondike gold rush has there been so much interest manifested in Northern Canada as during the past fiscal year. Many factors have combined to create this attitude in the public mind. The general northward trend of development has rolled back the Canadian frontier beyond the provincial boundaries. The amazing strides accomplished in the use of aircraft for exploration and mineral prospecting have made possible the reaching of regions heretofore practically inaccessible. The revival of Arctic and Antarctic exploration; the proposals to establish international air routes between Europe and America by way of Greenland and other Arctic islands; and the quest for northern furs, minerals, and other natural resources have aroused a widespread desire for greater knowledge of our far northern possessions.

It is the responsibility of the North West Territories and Yukon Branch to meet the public need in this respect, and to carry out the governmental policy of broader development activities. Its work, consequently, has been greatly increased in scope. In administration, exploration and dissemination of knowledge, the Branch has had an unusually active year. The scope of its work embraces all Department of the Interior matters, with the exception of mining, pertaining to the Northwest Territories and Yukon.

Wild Life Division.—The work of this division is carried on under two sub-divisions. One deals with the administration of the *Northwest Game Act* and the native game preserves, and the other with the administration of the *Fur Export Tax Ordinance*, and the payment of wolf and coyote bounties. A summary of the year's activities in these connections is contained in a statement appearing in the section devoted particularly to the Northwest Territories.

Lands and Records Division.—The work of this division has to do with the administration of Crown lands and timber in Yukon and Northwest Territories. A considerable amount of Branch correspondence was handled during the year by this division. Particulars regarding disposal of lands and timber are shown separately for the Northwest Territories and Yukon, in paragraphs that follow under their respective headings.

Engineering Division.—The office work of this division consisted largely of consolidating the field notes obtained by the various explorers and investigators employed in northern research, and the compiling and drafting of maps, charts, sketches, and weather charts for publication. Survey field notes were also calculated, checked, and plotted; buildings and boats were designed and drafted; areas calculated and technical descriptions of lands prepared, including descriptions of the mining divisions of the Northwest Territories. There was also the distribution of maps for publicity purposes, plotting leases and homesteads in Yukon Territory, and the preparation of licences for trading posts and for scientists and explorers, and of commissions for coroners, justices of the peace, and notaries public.

Supplies.—During the past year complete building material, equipment and supplies for doctors' residences at Aklavik, Coppermine, and Chesterfield were selected, requisitioned, and shipped. Specially designed boats for northern travel were secured also. Considerable supplies and equipment were furnished to mission schools and hospitals throughout Mackenzie District.

Library and Museum.—The Branch is gradually building up a very extensive and valuable Arctic library consisting of books, photographs, coloured lantern slides, and reels of motion picture film. It is accumulating also a collection of mineral, botanical, and other natural resources specimens drawn from Yukon and the Northwest Territories gathered principally by its own field officers. To this collection are being added many typical specimens of native workmanship—both Indian and Eskimo—in skins of animals, ivory, and other material, as well as relics of early exploratory expeditions and articles of archaeological and ethnological interest.

The library at the end of the year contained about 900 volumes, nearly all relating to Arctic exploration and development. Some of these works are original editions long since out of print and are very valuable and useful. During the year about thirty books were added. The library contains also over 7,000 photographs (of which 1,329 were added during the year), 1,000 coloured lantern slides, and a few reels of motion picture film. One of these reels is a very excellent motion picture of a band of musk-oxen on their native grazing grounds on Devon island, Eastern Arctic. It was secured by the Branch's photographer who accompanied the Annual Arctic Expedition of 1929.

FIELD INSPECTION BY THE DIRECTOR

During the year a field inspection of the Mackenzie District and of Yukon Territory was made by the Director of the Branch, Mr. O. S. Finnie. The many changes taking place in the North demand constant revision of administrative matters and policy, and the Director's trip was for the purpose of securing first-hand information of these changes and of discussing personally with various local spokesmen the advantages or disadvantages of certain proposed or requested changes in administration.

The Director left Ottawa on July 13, and travelled by rail via Edmonton, to the end of steel at Waterways, Alberta, thence by steamboat down the Athabaska and Slave rivers to Fitzgerald, from which point a sixteen-mile motor trip took him across the portage to Fort Smith, headquarters for the Government in the Northwest Territories.

Mackenzie Inspection.—From Fort Smith Mr. Finnie proceeded down the Mackenzie river by steamboat, visiting all settlements along the way as far as Aklavik. At each point of call frank discussions of the merits of new laws and suggested laws were encouraged, and careful notes were made of the suggestions offered by residents.

Flight from Aklavik to Dawson.—Having completed investigations in the Mackenzie valley, Mr. Finnie travelled by aeroplane from Aklavik to Dawson where inspection of affairs in Yukon Territory was commenced. This flight was an epochal one in the North, pioneering flying operations between the Mackenzie and the Yukon. The route followed was the old Mackenzie-Yukon route of Klondike days. From the Mackenzie delta the plane went by way of the Rat river to the Richardson mountains, crossed these mountains by way of McDougal pass and then followed the Bell and Porcupine rivers to Fort Yukon, Alaska, from which place the Yukon river was followed in an up-stream direction to Dawson. The trip was made in a single non-stop flight of six and one-half hours. The total distance flown was about eight hundred miles. The significance of

aerial transportation in the North may be realized when it is recalled that a month was formerly considered good time for making this trip by canoe and steamboat.

Yukon Inspection.—Inspections in Yukon Territory were continued at Mayo, Keno, Carcross, and Whitehorse. Again the aeroplane was used with remarkable time-saving advantages in travelling between Dawson and Mayo, and between Mayo and Carcross. Many matters of vital interest were discussed at points of call.

The Director returned by way of the Pacific coast and Vancouver, reaching Ottawa on September 20. The whole trip involved nearly 9,000 miles of travel.

PUBLICATIONS

To meet the demand for information respecting Government activities in the Yukon and Northwest Territories as well as for authentic data concerning their resources, climate, and other phases, the Branch issued during the year a number of publications. These, with a single exception, were written by its own officials who have had wide experiences in research and actual field investigations. Included are original reports of specific explorations and field examinations. The publications prepared and issued during the fiscal year were:—

Yukon—Land of the Klondike.—A 48-page, profusely illustrated booklet, with cover in colours, setting forth the attractions of the Yukon as a tourist objective and summarizing its resources. (Two editions).

The North West Territories, 1930.—A 137-page pamphlet with illustrations and maps, being a concise compendium of the Department's most accurate information on the extent, topography, population, resources, climate, transportation facilities, and Governmental organization of the Northwest Territories.

Reindeer Grazing in Northwest Canada.—A 46-page pamphlet, with illustrations and map, being the report of an investigation of pastoral possibilities in the area from the Alaska-Yukon boundary to the Coppermine river.

Southern Baffin Island.—A 130-page pamphlet, with illustrations and maps, being an account of exploration, investigation and settlement during the past fifty years on the southern part of Baffin island.

Discovery of the Breeding Grounds of the Blue Goose, 1929.—A short account, illustrated, of the discovery of the breeding grounds of the blue goose on Baffin island.

Coronation Gulf Copper Deposits.—A short report, illustrated, of an inspection during the year 1928-29, of the known mineralized areas in Coronation Gulf and Bathurst Inlet districts.

Preliminary Report on the Aerial Mineral Exploration of Northern Canada.—A 32-page pamphlet, with illustrations and maps, dealing briefly with the aerial operations of 1928 and 1929 and the added knowledge of the country obtained through these activities.

Regulations Respecting Game in the Northwest Territories.—A 44-page pocket bulletin containing information respecting game laws, wolf and coyote bounties, and the fur export tax.

These publications have proved exceedingly popular. A 15,000 edition of the Yukon booklet was quickly exhausted and a second edition of 15,000 was issued. Many requests were received for more complete reports of field investigations and the preparation of a number of these was begun.

In addition to the above mentioned publications, a number of articles dealing with explorations and developments in the North were prepared for publication in various scientific journals and for lecture purposes.

NORTHWEST TERRITORIES

NORTHWEST TERRITORIES COUNCIL

Personnel of Council.—The Northwest Territories Council is constituted as follows:—

Commissioner—W. W. Cory, C.M.G., Deputy Minister, Department of the Interior.

Deputy Commissioner—R. A. Gibson, Esq., Assistant Deputy Minister, Department of the Interior.

Members of Council—Charles Camsell, LL.D., Deputy Minister, Department of Mines; O. S. Finnie, B.Sc., Director, North West Territories and Yukon Branch, Department of the Interior; H. H. Rowatt, Esq., Dominion Lands Board, Department of the Interior; D. C. Scott, Litt. D., Deputy Superintendent General, Department of Indian Affairs; Colonel Cortlandt Starnes, Commissioner, Royal Canadian Mounted Police.

Meetings of Council.—During the year seven meetings were held. At these a number of important matters were dealt with, including the redrafting of the game regulations, the consideration of grants for the protection of native orphan children and for assisting the carrying on of hospitals and schools, the establishment of permanent radio stations, and the organizing of a system of fire-rangings and game protection by wardens. New ordinances concerning the fur export tax, legal time zones in the Territories, and Eskimo ruins were passed, and careful consideration given to the draft of the Revised Ordinances of the Northwest Territories.

ANNUAL ARCTIC EXPEDITION

The annual patrol by ship to the Arctic archipelago was carried out. The expedition sailed on the ss. *Beothic* from North Sydney, Nova Scotia, on July 20, having on board 44 persons in all, 36 officers and crew and 8 members of the expedition. In addition to the usual quota of supplies for the northern posts the ship carried building material for the construction of a residence and warehouse for the medical health officer at Chesterfield.

Members of Expedition.—The members of the expedition comprised Mr. G. P. Mackenzie, Officer in Charge; R. S. Finnie, Secretary; Mr. P. A. Taverner, Ornithologist of the National Museum staff; Dr. H. A. Stuart, Medical Officer of the Department; and four constables of the Royal Canadian Mounted Police, going North to relieve others coming out at the end of their tour of duty. Captain E. Falk, was Ship's Master and Captain L. D. Morin was Ice Pilot.

Call at Godhavn, Greenland.—The expedition reached Godhavn, North Greenland, on the morning of July 27. Godhavn, the capital of North Greenland, is an interesting settlement. The Danish officers here extended every kindness and courtesy to the members of the expedition. Acting Governor Berthelsen with Mrs. Berthelsen and other prominent Danish officers conferred with the Officer in Charge on matters of mutual interest in the North, and dined on the ship. A continuous moving picture show of pictures taken on the previous voyage of the *Beothic* was given for the entertainment of the members of the colony.

Supplies Landed at Dundas Harbour.—The expedition left the same evening for Dundas harbour, the next port of call. The ice conditions in Baffin bay were more favourable than in former years so that, without undue incident, the anchor was dropped in Dundas harbour at 11 p.m. of the 30th. All were well at the post. It was learned that Inspector A. H. Joy, had made this detachment his headquarters for the year. On March 12, accompanied by

Constable Taggart and the Eskimo, Nookapiungwah, he had left on a long patrol to Melville island and had not since been heard from. The Inspector, however, had left word at the post that if he had not returned to Dundas Harbour at the time the ship arrived he would be either at Craig Harbour or Bache Peninsula.

Moving Pictures of Musk-oxen.—By noon of July 31 all freight was landed and departure was taken for Craig Harbour. As the weather was fine and clear, on coming into Jones sound it was decided to proceed to cape Sparbo on the north side of Devon island for the purpose of securing moving pictures of musk-oxen known to be in that vicinity. At 7.30 on the morning of August 6 the anchor was dropped five miles off cape Sparbo, which is as near as a ship can approach on account of dangerous shoals. A party went ashore in the motor-boat and pictures of the musk-oxen were secured.

Supplies for Bache Peninsula Landed.—On the evening of the same day the expedition reached Craig Harbour, only to learn that Inspector Joy and his party had not reached that post. Departure was taken immediately for Bache Peninsula. An effort was made to take the ship through Glacier strait, only to find the eastern end of the strait blocked with ice, necessitating returning and going around the southern side of Coburg island. Much heavy ice was encountered in Smith sound south of the Cary islands. North of these islands, however, more open water was encountered until in the vicinity of Rice strait, when very heavy ice was again met with.

The anchor was dropped in Fram haven in the early morning of the 3rd. Inspector Joy and party, as well as Corporal E. Anstead and the two constables of the Bache Peninsula detachment, were here awaiting the arrival of the ship. All were well. The inspector had made a very successful patrol. The police reported that ice conditions in Buchanan bay were such that it would be impossible to reach the post with the ship. An investigation by the ship's officers confirmed this view. It was, therefore, decided to land the supplies for Bache Peninsula at cape Rutherford, which is on the south shore of Buchanan bay and about twenty miles from the post. The transfer of the supplies by motor boat, if conditions later in the season permitted, and if not, by dog-team in the winter, presented no very difficult problem for the police at the detachment, well equipped as they are for either means of transport.

All supplies were safely landed and the anchor weighed in the early morning of the 4th. The return was made around the north of Pim island. Fog and ice conditions made the passage across to Etah difficult. It was the intention to land here Dr. H. K. E. Krueger and his assistant, Mr. A. R. Bjare. Dr. Krueger is a distinguished German scientist who, by arrangements previously made, was transported on the *Beothic* from Godhavn to Etah. The few native families that usually make their headquarters at Etah had gone south to Robertson bay. Dr. Krueger and his assistant were, therefore, put ashore at Nerik settlement in Robertson bay on the afternoon of the 4th and departure was taken immediately for Dundas Harbour.

Return to Pond Inlet.—The passage south to Dundas Harbour was rendered particularly difficult because of dense fog and snow squalls. Dundas Harbour, however, was safely reached at noon on the 6th. Shortly after midnight the ship was again under way for the next port of call, Pond inlet, which port was reached at midnight of the 7th after a rather stiff contest with the ice in Eclipse sound. All were well at the post. Unloading was started shortly after the anchor was down and was carried on with considerable difficulty on account of the ice which was then moving in great quantities down the inlet to the open sea.

Southern Baffin Island Posts Visited.—Departure was taken for River Clyde the evening of August 8. Almost continuous fog and very severe ice conditions for the first hundred miles south of Pond Inlet made progress slow. Numerous polar bears were seen on the ice in this vicinity, but the atmospheric conditions were such that only fair moving pictures were secured. The ship arrived at River Clyde at noon of the 10th and left again at 5 p.m. of the same day for Pangnirtung.

In making the voyage south from River Clyde it was necessary to go more than one hundred miles off the coast to avoid very heavy ice nearer the land. On the morning of the 12th the pack was cleared, but heavy ice was met again at the entrance to Cumberland gulf. Only scattered ice was in the gulf, however, and without much delay on this account the expedition arrived at Pangnirtung at 4.30 p.m. of the 13th. All were well at the post. Unloading was started the same evening and was finished at early morning of the 15th.

Departure was taken immediately for Lake Harbour. A southeast gale created a very heavy sea which breaking over the ship smashed two of the boats used for landing cargo. Because of the fog conditions it was not possible to get an observation or bearing after leaving Pangnirtung until off the Hudson strait where a bearing was obtained from the Direction Finding station at Cape Hopes Advance. Advantage was thus taken of this wonderful aid to modern navigation. The anchor was dropped at Lake Harbour at 4.30 p.m. of August 17 and unloading was started immediately. Everything was landed and departure taken for Chesterfield inlet at 2.30 p.m. of the 18th.

Call at Chesterfield.—No ice of any consequence was encountered on the run to Chesterfield. A thick fog necessitated anchoring off Chesterfield for twenty-four hours before it was deemed safe to attempt an entrance to the harbour. The anchor was dropped at 10 a.m. of September 2. All freight was landed by the afternoon of the 3rd and departure immediately taken for Lake Harbour. Mr. W. H. B. Hoare, investigator for the Department, was taken aboard at Chesterfield.

On arrival off Coats island, the weather being fine, the Officer in Charge and party went ashore in the motor boat in the vicinity of Cary's Swan Nest. Several hours were spent in this part of the island securing specimens of vegetation with a view to assisting in determining the suitability of this island for reindeer.

Mr. J. Dewey Soper, investigator for the Department, joined the ship, according to arrangements previously made, off the entrance to Lake Harbour. The voyage was continued on to Resolution island, where the Marine Department was establishing a direction finding station. The ss. *Armora* and the ss. *Sambro*, carrying equipment and supplies for that work, were at anchor at Acadia cove and Captain Hearne of the *Armora* came out in a launch to pilot the *Beothic* through the very narrow entrance to the harbour.

Return of Expedition.—At 5 p.m. of August 28 departure was taken for Port Burwell and because of the very thick fog in the strait it was not possible to make the harbour until 11 p.m. of the 29th. The freight for the post was quickly landed and the start on the last leg of the voyage home made at 7 p.m. of the same day. The last few days of the voyage home to North Sydney were uneventful, that port being reached at 9.30 a.m. of September 3.

FIELD INVESTIGATIONS

Continuation of Previous Year's Work.—On April 1, 1929, the Branch had in the field the following investigators,—Messrs. L. T. Burwash, G. H. Blanchet, W. H. B. Hoare and J. Dewey Soper. Mr. Burwash had wintered on King William island and Boothia peninsula where he had been carrying on work in

connection with magnetic observations and Eskimo investigations. Mr. Blanchet had wintered at Tavane on the west coast of Hudson bay, having been attached as observer to one of the aerial mineral prospecting parties investigating Keewatin District. Mr. Hoare had spent the winter in Thelon Game Sanctuary making investigations respecting musk-oxen and caribou, and Mr. Soper had wintered on Foxe peninsula where he had carried out extensive topographical surveys and wild life investigations.

Investigations by Mr. L. T. Burwash.—On April 1, 1929, Mr. Burwash who had wintered in the field continued his investigations in the vicinity of King William island. During April a trip was made from Gjoa haven to the magnetic pole where observations for magnetic declination, vertical dip, and total intensity were made. Other magnetic observations were made at Kent bay, cape Victoria, and Oscar bay. On May 17 the winter camp at Gjoa haven was abandoned and a trip by dog-team was undertaken with Coronation gulf as its objective. Wilmot island, which lies in the easterly section of Coronation gulf, was reached on June 16 where an examination of the copper-bearing rocks in this area was completed. A trip covering the known mineralized areas of Coppermine river was made and several deposits of native copper were examined.

Investigations by Mr. G. H. Blanchet.—During the years 1928 and 1929 Mr. Blanchet was in Keewatin District making special investigations in connection with the mineral explorations being carried on there by a number of private companies. During the winter of 1929-30 he prepared reports on his investigations.

Investigations by Mr. W. H. B. Hoare.—During the spring and summer of 1929, Mr. Hoare completed his investigations in the Thelon Game Sanctuary. He then travelled to Chesterfield, where he met the ss. *Beothic*, carrying the annual Arctic expedition of the Department of the Interior, and returned by it to Ottawa.

Investigations by Mr. J. Dewey Soper.—On April 14 Mr. Soper completed his program of surveys of Foxe peninsula and returned to his headquarters at Cape Dorset. On May 17 he set out from Cape Dorset in search of the breeding grounds of the blue goose, which, after many days' hard travelling, he was successful in discovering. The location of these grounds is near Bowman bay on Baffin island, and their final discovery solved a problem which has long baffled ornithologists. Returning to Cape Dorset, an additional voyage of 365 miles was made to connect with the ss. *Beothic*, on which Mr. Soper returned to Ottawa.

Investigations of Mr. A. E. Porsild.—During June and July, Mr. Porsild, special investigator for the Branch, made a botanical examination of Charlton island in James bay, part of Akimiski island, and parts of the Twin islands, with a view to ascertaining wild life conditions.

FIELD SURVEYS

Surveys by Mr. F. H. Kitto.—During the summer Mr. F. H. Kitto, D.L.S., was sent to Charlton island, James bay, to make a settlement survey at House point, where, for over 200 years, the deep sea-going vessels of the Hudson's Bay Company have discharged their cargoes. A tract of land extending along the shore for a distance of about a mile on either side of the landing place and having an average depth of about half a mile was surveyed out into eight lots, and a small piece of land used as a burying place was posted out as a cemetery.

Surveys by Topographical Surveys Branch.—By request, the Topographical Surveys Branch made a number of surveys along the Mackenzie river. At Fort Smith the hill road was surveyed to the waterfront and a number of subdivisions

were made in the settlement. RetrACEMENTS and subdivisions were made at Good Hope and McPherson. A settlement survey of the entire Arctic Red River settlement was completed and a lot for a cemetery was laid out at Aklavik.

FIELD MEDICAL SERVICE

Pangnirtung.—Dr. L. D. Livingstone, Chief Medical Officer of the Branch, who was in residence at the Pangnirtung medical headquarters, returned to Ottawa in the fall of 1929 on the ss. *Beothic*. He was replaced by Dr. H. A. Stuart, who will have charge of medical affairs on Baffin island. Extensive patrols made by both Dr. Livingstone and Dr. Stuart brought them in contact with nearly all the natives of the Eastern Arctic. The general health of the Eskimos was found to be good and their living conditions satisfactory. Numbers of patients were given medical treatment and considerable surgical work was performed at headquarters.

Aklavik.—The medical station established by the Branch at Aklavik was in charge of Dr. J. A. Urquhart throughout the year. Owing to the lack of a suitable boat for summer travel, the medical officer was unable to cover as much territory as desired, but several winter patrols were made by dog-team. Arrangements have been perfected for the supplying of a suitable boat. Aklavik station serves particularly the needs of the Mackenzie Delta Eskimos and the few Indians that inhabit that region. The general health of the natives, both Eskimo and Indian, was somewhat better than during the previous year and no epidemics of any sort occurred in the district.

Establishment of Medical Station at Coppermine.—During the year a medical base was established at the mouth of the Coppermine river, and Dr. R. D. Martin was appointed to take charge of it. This base is designed to serve the natives of Coronation gulf, those westward as far as the territory served by the Aklavik depot, and eastward as far as circumstances permit. Materials for the necessary building, medical equipment, and supplies were shipped from Vancouver by the Hudson's Bay Company's ship, the *Baychimo*, and were safely delivered. Dr. Martin reached the Coppermine on August 23, and immediately took charge of the erection of a house and warehouse which were completed by the middle of October. Several patrols were made during the fall and winter by dog-team, and a number of natives were given attention.

Establishment of Medical Station at Chesterfield.—During the year arrangements were perfected for the establishment of a medical station at Chesterfield in Keewatin District. The construction of a doctor's residence was commenced under a contract. In March, Dr. L. D. Livingstone, Chief Medical Officer, who was selected to supervise the opening of this station, left Ottawa by train for Churchill from which point he proposed to travel by dog-team along the coast to Chesterfield.

Co-operation with the Department of Indian Affairs.—By a co-operative arrangement with the Department of Indian Affairs, three medical officers of that department act also as medical officers for the North West Territories and Yukon Branch. These officers were stationed at Fort Smith, Resolution, and Simpson.

Assistance to Mission Hospitals.—Financial assistance and medical supplies were given as usual to the hospitals that are maintained by the Anglican and Roman Catholic missions at Fort Smith, Hay River, Simpson and Aklavik. All hospitals were in charge of trained nurses.

VITAL STATISTICS

The Director is the Registrar General of Vital Statistics and is responsible for the recording of births, marriages, and deaths for the whole of the North-

west Territories. It is satisfactory to note that the last fiscal year compares very favourably with other years, as regards the general well-being of the native population.

FORT SMITH AGENCY

District Office.—The local office at Fort Smith was in charge of District Agent J. A. McDougal. His duties included those of Mining Recorder, Dominion Lands Agent, Crown Timber Agent, Superintendent of Wood Buffalo park and Chief Fire Warden. He also acted as Postmaster under the Post Office Department and had charge of wharves and aids to navigation for the Department of Marine and Fisheries.

Wood Buffalo Park.—The District Agent, in his capacity as Superintendent of Wood Buffalo park, has a staff consisting of a park warden and twelve game wardens.

ADMINISTRATION OF THE NORTHWEST GAME ACT

Because of the length of time involved in receiving returns at Ottawa from outlying trading posts, it is impossible to compile complete statistics of the fur trade for the past fiscal year for inclusion in this report. The fur returns for the fiscal year 1928-29 are given below, but, unless specifically stated otherwise, the general information refers to the fiscal year ending March 31, 1930.

The fur returns for 1928-29 showed a further slight decline in several species of fur bearers. There was, however, a marked increase in the number of muskrats taken. This, together with the increased value of the pelts of other animals, accounts for an increase in the value of the total yield by over \$100,000 as compared with the value of the fur yield of 1927-28. The following statement shows the number of pelts secured during the license year 1928-29:—

STATEMENT of pelts of fur-bearing animals traded under licences, or surrendered for bounty or under special regulation, during the licence year 1928-29, in the Northwest Territories.

	Mackenzie District	Keewatin District	Franklin District	Total
FUR-BEARERS				
Bear, black.....	133	3	11	147
“ grizzly.....		1		1
“ not specified.....	17	1	1	19
“ white.....	23	73	127	223
Beaver (traded).....	806	164		970
“ (surrendered under special regulation).....	2,391			2,391
Coyote.....	59			59
Ermine.....	15,611	24	13	15,648
Fisher.....	85			85
Fox, blue.....	64	11	34	109
“ cross.....	777	35	5	817
“ not specified.....	17			17
“ red.....	1,611	71	17	1,699
“ silver.....	85	4		89
“ white.....	6,125	4,617	1,803	12,545
Lynx.....	1,085			1,085
Marten.....	8,251	34		8,285
Mink.....	3,695	69		3,764
Muskrat.....	247,958	20	103	248,081
Otter.....	215	7		222
Skunk.....	17		26	43
“ silver.....	159	21	3	183
“ silver.....	96	82	7	185
Wolf (traded).....	800	76	164	1,040
“ (surrendered for bounty).....				
BIG GAME				
Caribou.....	120	296	29	445
Moose.....	114	19		133

There was a close season on beaver in the Mackenzie District during 1928-29. The 970 beaver pelts listed above as traded, represent pelts held over by traders from the previous season and pelts secured in Keewatin District. The other 2,391 pelts were those of beaver taken by Indians and Eskimos under special regulation and surrendered to the Government.

Protected birds reported as taken under licences include 942 ducks, 43 wild geese, 343 grouse, 672 ptarmigan, and 87 prairie chickens.

Buffalo.—The warden service of Wood Buffalo park was maintained at full strength throughout the past year. It is estimated that there are now about 10,000 buffalo in this area. The herds wintered well and those animals recently transported from Buffalo national park at Wainwright, Alberta, and liberated with the native animals appear to be firmly established in their new habitat. A few aged buffalo, outcasts from the different herds, were slaughtered and the meat was distributed among needy native families, native boarding schools, and hospitals in the adjacent areas.

Musk-ox.—The original large herds of musk-oxen which formerly roamed over the northern part of Canada have been so reduced that now, according to the latest estimates, approximately only 13,000 remain, the majority of which are to be found on the islands north of the mainland. Reports of Branch field officers indicate that there are about 250 musk-oxen in the Thelon Game Sanctuary. These animals are fully protected.

Caribou.—Large herds were observed in the tundra area north and east of Great Slave lake by field officers of the Branch as they were returning by aeroplane from Bathurst inlet last fall. This was evidently the usual seasonal migration of the herds in this part of the North.

Beaver.—The Order in Council providing for a close season for beaver in the Mackenzie District was modified to enable needy Indians and Eskimos to take a limited number for food during 1928-29, conditional on the pelts being surrendered to the Government, in exchange for which credit at local trading posts was given. The returns indicate that 2,391 beaver were taken under this authority. The regulation providing a total close season on beaver in the Mackenzie District is now being enforced.

Muskrat.—The number of muskrat skins traded increased from 154,648 during 1927-28 to 248,081 during 1928-29. It would seem that the muskrat cycle has now reached its highest peak. These animals are reported to be very numerous in the Mackenzie delta. This large area is a splendid muskrat habitat and the field officers report that the large number of pelts taken from that area during the last hunting season has made no apparent decrease in the muskrat population, and that it is doubtful if the number taken was equivalent to the natural increase.

Wolf.—During the year 1928-29 warrants were issued covering the payment of bounties at the rate of \$30 per animal for the destruction of 1,040 wolves. This bounty is paid upon the surrender of the wolf pelt to the Crown by the person who kills the animal. In addition to the above, 185 wolf pelts were sold to traders, making a total of 1,225 wolves destroyed during the year 1928-29. This is a decrease as compared with the figures shown for the previous year and might indicate that the new system of payment of bounty has encouraged the hunters to greater activity and that the number of wolves in the Northwest Territories has already been materially reduced. The pelts surrendered to the Government for bounty were sold by auction in Montreal.

Coyote.—On March 11, 1929, Order in Council No. 418 was passed authorizing payment of \$15 bounty on each coyote killed in the Northwest

Territories and in that portion of the province of Alberta within the boundaries of the Wood Buffalo park, conditional on the pelt of the animal being surrendered to the Crown. This order became effective on July 1, 1929.

Revenue

The revenue collected under the *Northwest Game Act* for the fiscal year 1929-30 was as follows:—

Hunting licences.. . . .	\$18,952 95
Trading licences.. . . .	7,373 10
Bird licences.. . . .	55 00
Fur Farm licences.. . . .	37 00
Trading Post permits.. . . .	43 00
Sale of wolf pelts.. . . .	39,465 60
Fur Export tax.. . . .	758 70
Fines and forfeitures.. . . .	75 00
Total.. . . .	<u>\$66,760 35</u>

This is an increase of \$15,619.31 over the amount received during the previous year.

Licences.—Returns showing the issue of the following licences were received during the fiscal year 1929-30:—

	Number
Hunting: Resident.. . . .	309
Non-resident British.. . . .	192
Non-resident non-British.. . . .	50
Trading: Resident.. . . .	142
Non-resident British.. . . .	39
Non-resident non-British.. . . .	6
Game Bird licences.. . . .	11
Fur Farm licences.. . . .	8

Violations of Act.—There were six prosecutions for violation of the *North-west Game Act* and three convictions during the year 1929-30.

PERMITS

Permits were issued or dealt with as indicated below:—

Purpose	Number
To establish trading posts.. . . .	30
To take and export mammals for propagation purposes.. . . .	3
To take mammals for propagation purposes during the open season (issued to holders of fur-farm licences).. . . .	10
To trap and hunt fur-bearers, other than buffalo, in Wood Buffalo park.	312
To render <i>Migratory Bird Act</i> permits operative in the Northwest Territories (countersigned).. . . .	15
To take specimens of mammals and non-migratory birds for scientific purposes.. . . .	8
To import liquor for medicinal purposes.. . . .	435
Explorers and Scientists permits—to permit the holder to enter the Northwest Territories for exploration or scientific purposes.. . .	8

FUR EXPORT TAX ORDINANCE

The Fur Export Tax Ordinance was assented to by the Commissioner in Council of the Northwest Territories on May 7, 1929. It provides for the collecting of a tax on furs exported from the Northwest Territories and became effective on December 31, 1929. Up to March 31, the end of the fiscal year 1929-30, the amount of tax collected under the provisions of this ordinance was \$758.70. The furs on which this tax was levied were nearly all exported by aeroplane as the regular seasonal movement of furs since the tax became effective had scarcely commenced.

WOOD BUFFALO PARK

The warden service was maintained at full strength throughout the year. The several wardens who patrol the park estimate that the annual increase of the buffalo is from twenty to twenty-five per cent, and report that the animals are in excellent condition. Slight damage has been reported to the grazing grounds of the buffalo in certain places due to new dams erected by beavers, causing the overflow of several streams. This is conclusive evidence that the beaver in the park are increasing.

During the summer of 1929 a new telephone line was constructed from Hay Camp to Pine lake, a distance of $40\frac{1}{2}$ miles. This brings the total mileage in the park up to 143 miles, connecting the superintendent's office at Fort Smith with the wardens' cabins and the cabins with each other. Two new cabins were constructed during the year. One is located on Jackfish river and the other on Nyarling river. A wagon road was completed from Hay Camp to Pine lake. Other roads were under construction throughout the park during the year. Several bridges had to be constructed because of higher water in various streams.

The warden service is equipped with eight portable pumps, each supplied with 2,000 feet of hose for fire-suppression purposes. This equipment is kept in first-class condition and is placed at strategic points throughout the park. At the end of the fiscal year the park service had forty-nine sled-dogs for use in winter patrol.

LANDS AND TIMBER

Disposal of Lands.—Practically the only lands disposed of in the Northwest Territories are lots in the various settlements that have been acquired by Roman Catholic and Anglican missions, fur traders and transportation companies in connection with their several undertakings, and lots for residence purposes and gardens. There are no regulations in force making provision for the acquiring of homesteads as in the Prairie Provinces, but lands suitable for agricultural purposes may be acquired by purchase after being surveyed.

The Northwest Territories Hay and Grazing Regulations make provision for the issuing of permits to cut hay on vacant Crown lands, and for the issuing of grazing leases for a period not exceeding twenty-five years. Temporary use of certain lands may be acquired under a licence of occupation. At the end of the year four grazing leases and five licences of occupation were in good standing. Two lots were reserved at Norman as a site for the erection of a radio station.

Administration of Timber.—Under the Timber Regulations free permits may be granted to educational, religious, and charitable institutions to cut fire-killed or dry timber for fuel purposes, the quantity not to exceed one hundred cords in a permit year. Fixed dues are charged on timber cut for other purposes and the total revenue derived from the disposal of Crown timber as saw-material, building logs, and cordwood during the year was \$3,584.85.

PURCHASE OF REINDEER HERD

In 1919 a Royal Commission was appointed to investigate the possibilities of the reindeer and musk-ox industry in the Arctic and sub-Arctic regions of Canada. In its report, issued in 1922, the commission recommended, among other things, that small experimental reindeer herds be established in a number of localities which might, after departmental investigation, be found suitable for such purpose. Acting on these recommendations, the Dominion Government, through the North West Territories and Yukon Branch of the Department of the

Interior, employed experienced northern botanists to investigate during 1926-27-28 the possibilities of certain areas in Mackenzie District where caribou formerly grazed in large numbers but were no longer to be found.

This investigation indicated that the proposal to establish reindeer herds in the Northwest Territories appeared well advised. The Dominion Government immediately took the necessary steps to acquire an initial herd of animals. By Order in Council of May 1, 1929, the Minister of the Interior was authorized to purchase 3,000 head of reindeer in Alaska, where semi-domesticated reindeer have been bred for many years. Under the terms of a contract which was made subsequently, the vendors agreed to select this number from the largest and most virile animals in their possession, and to deliver them at a location east of the Mackenzie delta. In the fall of 1929, one of the Branch's special investigators, who had made the preliminary field investigations in this connection, was sent to Nome, Alaska, to represent the Department in the selection of the reindeer being purchased. He spent two months on this work and witnessed the start of the "drive" of the animals on their way to Canada. Arrangements for the reception and care of the reindeer on their arrival at the Mackenzie delta were begun before the end of the fiscal year and will proceed during the summer of 1930. The necessary buildings and corrals will be erected and other arrangements made.

TRANSPORTATION

Roads.—As yet the only road in the Northwest Territories on which the Branch has expended monies other than in Wood Buffalo park, is that leading from the settlement of Fort Smith to the steamboat landing at the foot of the river bank. This road, which was very steep and difficult of travel, was improved during the year.

Aids to Navigation.—The district agent at Fort Smith, acting for the Department of Marine and Fisheries, set out buoys as usual in the spring at the mouth of Slave river and on Great Slave lake, and took them up at the close of navigation.

Landing Fields.—Preliminary steps were taken to assist in the preparation of temporary landing places for winter aircraft and for dockage for hydroplanes landing near the principal settlements. The matter of providing permanent landing fields received consideration.

MAIL AND RADIO

Improved Mail Service.—The Post Office Department of Canada maintained the following post offices in Mackenzie District—Fort Smith, Resolution, Hay River, Providence, Simpson, Wrigley, Norman, Good Hope, Arctic Red River, McPherson, and Aklavik. A post office was also maintained at Herschel, Herschel island, Yukon Territory. During the season of open navigation these offices, as far north as Simpson, were provided with a weekly mail service. North of Simpson the summer schedule of 1929 called for seven mails to Wrigley and Norman, six to Good Hope, five to Arctic Red River, McPherson, and Aklavik, and three to Herschel. Arrangements were made by the Post Office Department for the carrying of occasional mails by the Hudson's Bay Company to Rae and Liard. Way sacks for the exchange of mails between intermediate points were provided.

In November, 1929, the Post Office Department inaugurated a winter air mail service to Mackenzie River offices. A flying base was established at McMurray for this work. The announced schedule called for a weekly service between November 26, 1929, and April 8, 1930, to Chipewyan, Fitzgerald, Fort

Smith, and Resolution. Hay River, Providence, and Simpson were to receive six mails and Wrigley, Norman, Good Hope, Arctic Red River, McPherson, Aklavik, and Herschel three mails during this period. Outgoing mail was to be carried on all return trips of the planes.

Radio Stations operated.—The following stations in the Mackenzie-Yukon radio system were operated throughout the year: Edmonton, in Alberta; Fort Smith, Resolution, Simpson, and Aklavik, in Mackenzie District; and Dawson and Mayo, in Yukon. That at Herschel was operated during the summer months.

Inauguration of Weekly Bulletin.—For several years the residents of Mackenzie district have had the great benefit of a system of wireless communication, but it was felt that something more could be done with this equipment. With the co-operation of the Department of National Defence, arrangements were perfected during the past year whereby every day one of the officers of the Department of the Interior at Edmonton prepares a 500-word bulletin of news of special interest to northern residents and this is broadcast to the receiving stations in the North. The bulletins thus received are posted at the local offices of the North West Territories and Yukon Branch where they may be read by everybody. Although in use only a short time, many messages of appreciation of this service have been received from the north country.

EDUCATION

Aid to Mission Schools.—The Department of the Interior has no public school system in Mackenzie District but grants for educational purposes are made to the Anglican and Roman Catholic Churches, both of which maintain day and boarding schools for white and native children in connection with their missions.

Schools Operated by Missions.—The Anglican Church operated during the year, a boarding school for Indian and Eskimo children at Hay River, a day school at Simpson, a day school at McPherson, a day school at Aklavik, and a day school at the mouth of Coppermine river. A boarding school for Eskimo children was established recently at Shingle Point, Yukon Territory, on the Arctic coast.

The Roman Catholic Church operated a day school at Fort Smith, a boarding school for Indian and half-breed children at Resolution, a similar boarding school at Providence, a day school at Simpson, a summer day school at Wrigley, a day school at Good Hope, and a boarding school for Indian and Eskimo children at Aklavik. In addition to these schools, provision was made for the holding of classes for children temporarily gathered in the vicinity of any point where there is a mission.

LAW AND ORDER

Royal Canadian Mounted Police Establishment.—Law and order were efficiently maintained throughout the year by the Royal Canadian Mounted Police. The establishment of this force in the Northwest Territories consists of between eighty-five and ninety officers and men distributed among more than twenty widely separated posts. With a highly organized staff of picked men placed in these strategically located posts, this force was able to cope adequately with the situation. A minimum of crime was reported throughout the year.

Patrols by the Police.—An outstanding feature of the work performed by this force is the patrol system. At convenient times during the year—both

summer and winter—members of the various detachments journey back and forth on long patrols to keep in touch with each other, to exchange mail, and to visit natives, trappers, and traders along the way or in outlying sections of the country assigned to each detachment. In this way a close touch is kept on general conditions and the natives are made to feel that the Government has an interest in their welfare. The reports of many of these long patrols, especially those made by dog-team during the depth of winter, involving hundreds of miles of travel across unexplored areas, make most absorbing reading and are of great value in adding to the general knowledge of the country.

The most outstanding patrol of the past year was that made in the Arctic archipelago by Inspector A. H. Joy. On March 12, 1929, Inspector Joy left detachment headquarters at Dundas Harbour on the south coast of Devon island with Constable Taggart and one Eskimo and two dog-teams as his main support, and Constable Hamilton and another Eskimo with a third dog-team as reinforcements for a few days. On May 31 he arrived at Bache Peninsula detachment headquarters on the east coast of Ellesmere island, after having made a successful patrol of over 1,700 miles in 81 days that took his little party by a circuitous route over a vast area of the northerly part of the Canadian Arctic archipelago. On this patrol Inspector Joy made many side excursions to examine interior parts of the islands visited, in some instances erecting cairns to mark his visits.

Court Proceedings.—During the summer of 1929, Hon. Lucien Dubuc of Edmonton, Stipendiary Magistrate for the Northwest Territories, journeyed down the Mackenzie river with a full court and at the principal posts disposed of the docket of cases awaiting trial.

Appointments.—The following official appointments were made during the year: four coroners (including Dr. R. D. Martin at Coppermine and Dr. H. A. Stuart at Pangnirtung), ten notaries public (reappointed), four justices of the peace, and twenty-five commissioners for taking affidavits.

YUKON

YUKON COUNCIL

Personnel of Council.—The members of Council who were elected on August 29, 1928, for a three-year term are: W. L. Phelps, Whitehorse District; Frank Carscallen, Mayo District; and A. T. Taddie, Dawson District.

Session of Council.—The Yukon Council was in session from June 4 to June 12, 1929. There were some amendments made to existing ordinances, and ordinances were passed providing for the payment of a bounty on wolves and coyotes, and also to regulate the hours of labour in placer mining operations.

Under the ordinance to provide for the payment of bounty on wolves and coyotes the sum of \$2,125.05 was expended. This small amount was due to the fact that it was not possible to have information as to the payment of a bounty transmitted to outlying districts in time for the payment of such bounty during the year; and further many pelts have been shipped outside by the trappers themselves. It is anticipated, however, that a considerable increase will be noted in the coming year.

LANDS AND TIMBER

Land Administration.—The revenue collected from Dominion lands in the form of rentals, and office, homestead entry, and hay permit fees, amounted to \$3,297.58. There were no sales of land. Land rentals accounted for \$3,268.58; office fees for \$16.50; homestead entry, \$10; and hay permits, \$2.50.

Timber Administration.—The kinds and quantities of the various classes of timber cut were as follows: saw-timber, on which dues were paid, cut under permit 105,908 feet board measure; fuel-wood cut under authority of permit 14,560 cords; fuel-wood cut without authority of permit and on which seizure dues were paid, 54 cords; logs cut without authority of permit, 384 linear feet; fuel-wood cut on timber berths on which dues were paid, 1,377 $\frac{3}{4}$ cords.

The total revenue derived from Crown timber amounted to \$7,807.38; made up of royalty, \$688.90; permits, \$7,056.80; and seizure dues, \$61.68.

AGRICULTURE

The season was favourable for crops with abundant moisture, which resulted in well matured crops of an excellent quality.

BIG GAME

Big game was reported as being very plentiful. There were several parties of big game hunters in the Territory last year, and they were very enthusiastic with the results of their hunt.

PUBLIC WELFARE

Hospitals and Public Health.—The hospitals at Whitehorse, Dawson, and Mayo were maintained in their usual state of efficiency and the health of the residents of the Territory has been excellent.

Education.—The number of pupils in the different schools remained at about the same level as last year. Public and high schools were maintained at Dawson, Whitehorse, Mayo, and Keno, and assisted schools at Carcross and Tagish.

Law and Order.—Law and order were well maintained throughout the Territory by the Royal Canadian Mounted Police, and frequent patrols have been made to the outlying districts.

TRANSPORTATION AND COMMUNICATION

Railway and Steamboat Service.—The White Pass and Yukon Railway was operated throughout the year between tidewater as Skagway, Alaska, and the head of navigation on the Yukon river at Whitehorse, Yukon. Steamboats were operated between Whitehorse and Dawson, Dawson and Mayo, and Dawson and lower river points during the open season.

Tourist Traffic.—The number of tourists visiting Dawson during the season of navigation on the Yukon river and especially during the months of July and August was greater than during any previous year. The popularity of the Yukon trip is steadily increasing. Many tourists went as far north as Carcross and then turned aside to visit Atlin in northern British Columbia. Big game hunters were as active as ever in the Kluane, MacMillan and other favourite regions.

Aviation and Landing Fields.—The use of aircraft as a means of rapid transport and for carrying mails has increased greatly. Landing fields for aeroplanes have been prepared at Whitehorse, Dawson, Mayo, and Keno, also an emergency field at Minto, which was constructed by the Treadwell Yukon Company.

In winter, planes land on the frozen surface of the rivers in front of Dawson, Mayo, and Whitehorse, as this plan is more convenient to the settlements and the ice makes a better field for winter use than the land. It is also possible to land at Dawson, Mayo, and Carcross in the summer with pontoons, as there is

sufficient depth of practically still water to make successful landings. The landing field at Dawson is situated at the mouth of Bonanza creek on mining ground leased by the Yukon Consolidated Gold Corporation, Limited.

Roads, Bridges, and Public Works.—The roads in the Territory were maintained in as fair a condition as possible consistent with the amount of money available for such work.

Last year a steel bridge for erection across the Mayo river at Minto bridge, to replace the old wooden structure, was ordered from Vancouver and transported to the mouth of the Stewart river. It is the intention to have the bridge material transferred to Mayo at the opening of navigation and, if possible, arrangements will be made for its construction during the coming season. On account of the very heavy tonnage of ore which passes over the present wooden bridge, it is considered advisable to replace it with the new structure as soon as funds are available.

Mails, Telegraphs, and Radio.—The usual mail service was continued throughout the year. The old Hazelton-Dawson land telegraph line was in operation, and radio stations were operated at Dawson and Mayo throughout the year, and at Herschel during the summer season.

VII

SURVEYS BUREAU

REPORT OF THE DIRECTOR GENERAL OF SURVEYS, J. D. CRAIG

The Surveys Bureau comprises the following branches or divisions engaged in surveys or related work, namely:—

Geodetic Survey of Canada.

Topographical Survey.

International Boundary Commission (Canadian Section).

Aerial Surveys.

Town Planning.

The Director General of Surveys is the head of the Surveys Bureau and is also International Boundary Commissioner representing Canada. In addition, he acts as Chairman of the Geographic Board whose function it is to decide upon place-names in the Dominion submitted for approval by any of the federal departments or by the provincial authorities.

The Geodetic Survey continued the general scheme of triangulation and levelling which will ultimately cover the whole country, and lead to the establishment in every locality of one or more selected stations whose geographic position (latitude and longitude) and elevation above sea-level are known to the highest degree of accuracy. Such points when permanently marked provide control for mapping and engineering operations of federal and provincial departments, municipalities, corporations, and private persons. The employment of aeroplanes for reconnaissance and the transportation of parties in the newer portions of the country has proven most advantageous, and has resulted in the speeding up of the work. Nine volumes were issued containing the results of the levelling operations of the Survey throughout the country, and in addition some geodetic research work was done and valuable data were recorded in connection with the investigation of isostasy.

The field work of the Topographical Survey included control surveys, aerial surveys, ground surveys for topographical mapping, legal surveys, land classification work, interprovincial boundary surveys, and surveys for determining magnetic declination. Eighteen parties were employed and in addition three engineers acted as navigation officers with the Royal Canadian Air Force planes engaged in taking aerial photographs. New map sheets were issued covering 106,302 square miles, of which 71,898 square miles were covered by map sheets of the National Topographic Series. The Physical Testing Laboratory continued the testing, adjustment, and certification of various scientific instruments, more than half its operations being conducted on behalf of other departments and organizations. It is interesting to note that a one-metre nickel rule formerly in possession of the laboratory has now been adopted by Order in Council as the legal metre for Canada.

The International Boundary Commission, Canadian Section, under a co-operative arrangement with the United States Section, undertook to reopen the vista and repair the monuments on a section of the Quebec-Maine boundary. The boundary was also marked in a suitable way on a number of international highways, bridges, and tunnels. Fourteen boundary map sheets were issued and signed by the Commissioners.

The Aerial Surveys Division, organized about a year ago, assists in carrying out the program as approved by the Departmental Aerial Committee and thus forms the point of contact with the Air Force. Another important function of this division is the initiation of experimental work looking to the extension of aerial surveying into new fields of usefulness.

The Town Planning Division functions as the central educational agency for the promotion of town-planning practice throughout the Dominion. During the year a large number of articles have been contributed to the *Town Planning Journal*, many of which have been copied for editorial use by the newspapers of the country. A large correspondence is maintained with those centres where town planning is in progress or in the initial stages, and suitable literature is supplied for guidance as to procedure. The annual convention of the town-planning fraternity is largely dependent upon the division for organization, and an officer of the division attended the Winnipeg convention last year and took a prominent part in the transactions.

A brief summary of the work of the chief divisions of the Bureau, as listed above, follows. Detailed reports covering the activities of the Geodetic Survey and the Topographical Survey are issued as separate publications, and there is also available a separate report of the work of the Surveys Bureau as a whole.

GEODETIC SURVEY

The Geodetic Survey of Canada determined with the highest attainable accuracy the geographical positions of an increased number of geodetic stations in Canada required as basic control for Canadian mapping operations, and established the precise elevations of bench-marks above mean sea-level at points distributed over an increased mileage along Canadian railway tracks and highways, thus providing control datums for the mapping and engineering operations of federal and provincial departments, municipalities, corporations, and private persons.

Triangulation nets and precise traverses of first-order and second-order of accuracy were extended and base lines for length control in triangulation were measured with first-order accuracy. Laplace stations combining observations for latitude, longitude, and azimuth were established. The precise traverse and base line tapes were standardized. Geodetic research was carried on, and data of value in the investigation of isostasy were obtained. Geodetic results were printed and distributed, and material was prepared for presentation at the Fourth General Conference of the International Geodetic and Geophysical Union meeting at Stockholm, in 1930.

Triangulation and Precise Traverse.—The western and northern portions of the triangulation and precise traverse control loop in British Columbia, which comprises 1,150 miles of first-order triangulation and 200 miles of first-order traverse through the interior of British Columbia, were completed. The uncompleted portion of this control loop follows the Fraser River valley.

In Saskatchewan first-order triangulation in the area from Lloydminster to Prince Albert, and reconnaissance south from Prince Albert to the international boundary were completed. Stations were selected for an extension from the main net at Prince Albert for control in the Prince Albert National Park area.

In Ontario first-order triangulation was completed from North Bay to Sudbury, and a first-order traverse was extended northerly from Cochrane.

In Quebec the aeroplane reconnaissance carried out in 1928-29 between Senneterre and La Tuque was checked by ground methods. Reconnaissance was completed by aeroplane for a net from Oskelaneo one hundred miles towards lake Chibougamau. The first-order triangulation northward from

Ottawa was extended along the Gatineau valley. The advantages to be gained by the use of the aeroplane for reconnaissance observations, and for the transportation of parties and their equipment, have been demonstrated.

In the Maritime Provinces a triangulation through the western portion of New Brunswick was completed. The elevations of a number of the most prominent hills in New Brunswick were determined by trigonometric levelling.

Levelling.—Field parties of the Levelling Division operated in five of the provinces—a precise levelling party in British Columbia, a secondary levelling party in Quebec, one party of each kind in the province of Ontario and, in addition to these four regular parties, a special party engaged in the establishment of fundamental bench-marks in certain cities and towns in the provinces of Manitoba and Saskatchewan.

The British Columbia party established precise level bench-marks along the Cariboo road between Quesnel and Prince George, and, later on, ran north-erly from Victoria along the Esquimalt and Nanaimo railway. The Quebec party was occupied in the Saguenay and Lake St. John areas. One of the Ontario parties worked in the Rouyn district—between Swastika, Ontario, and Taschereau, Quebec—and then carried levels some sixty-five miles north of Cochrane along the recently constructed extension of the Timiskaming and Northern Ontario railway. While a small portion of this party's work lay within the province of Quebec, the other party spent the whole season in Ontario, completing the levelling along the Pembroke-North Bay highway westerly from Deux Rivières—the point at which the previous season's levelling had been discontinued—and then proceeding to the Parry Sound district, where the remainder of the season was spent. A line of levels was completed from North Bay to Parry Sound and continued southeasterly, for some distance, towards Bracebridge.

During the past twelve months there have been released to the public nine publications comprising a complete revision of the precise levelling in the Dominion as carried on by the Geodetic Survey since its inception. These publications cover precise levelling in the Maritime Provinces, Quebec South, Quebec North, Ontario South, Ontario North, Manitoba, Saskatchewan, Alberta, and British Columbia. This is the first time that the precise levelling information based on one datum extending from the Atlantic to the Pacific seaboard has been published. In order to accomplish this, it has been necessary, for several seasons past, to do considerable revision of level lines in the field and to carry out a complete inspection of bench-marks. The publications have been issued in dictionary form in which the bench-marks are listed under the names of the nearest railway stations arranged alphabetically.

Triangulation Adjustment.—Geodetic survey data as requested by federal and provincial bureaus, and by the engineering public have been furnished. A report on triangulation in the Bay of Fundy area with an extension from Truro to Halifax, thence to Liverpool, Nova Scotia, has been printed and distributed.

Precise Levelling Adjustment.—A publication *Adjustment of the Precise Level Net of Canada, 1928* was issued. This publication described the net in general, the orthometric and other corrections necessary to field work, and the methods of adjustment employed; it also gave the resulting elevations. This adjustment was based on tidal stations on the Atlantic and Pacific coasts and a temporarily-adopted elevation for Rouses Point on the boundary between the United States and Canada. A new adjustment was made later, omitting the Rouses Point datum, and elevations were obtained for all points in the Canadian net based on Canadian tidal values only.

Laplace Observations.—Observations for the determination of latitude and longitude were made at a number of stations in the triangulation of the Northern Ontario-Quebec area, the Gaspé Peninsula and Chaleur Bay areas, along the west shore of Hudson bay and on the Ontario-Manitoba boundary. A publication entitled *Deflection of the Plumb Line in Canada* was prepared for the printer.

Base Lines.—First-order base lines were measured near Kitscoty, Alberta, and at Kinistino, Saskatchewan, to provide length control in the Alberta-Saskatchewan triangulation.

Standards.—The fifty-metre invar tapes, used both in base-line measurement and in precise traverse, were standardized before and after their field use in 1929.

Isostasy.—As a result of observations in Gaspé peninsula, valuable data were recorded in connection with the investigation of isostasy. The Survey has been able to devote only a limited amount of time to this work.

Geodetic Research.—On account of the vast area of Canada, many problems in geodesy have arisen. Among these is the problem of determining the geodetic position of a point from a point the position of which is already known when the line between the two points is very long (say over one hundred miles). This problem has been satisfactorily solved and will have many applications in practical geodesy.

The treatise, *The Simultaneous Adjustment of Precise Traverse and Triangulation*, has recently appeared in printed form and is now ready for distribution. This treatise was prepared primarily to take care of the joined systems of triangulation and precise traverse control in the provinces of Ontario and British Columbia.

TOPOGRAPHICAL SURVEY

Canada is still undergoing a process of development. Great national problems have to be faced such as the extension of our railway systems to the north, the utilization of our water-powers and the development of our great transportation waterways. The provinces, the counties, the municipalities, the cities, all in their respective spheres, have similar problems to be worked out consequent upon their growth and development. In the intimate study of such problems, which constantly confront our administrators, more and better information is needed than can be shown upon geographical or general maps. This need is met by what are known as topographical maps. Such maps have many uses and serve as a base on which most problems affecting human activities may be studied and investigated, and plans made for their solution.

The production of these topographical maps in an orderly and systematic way for a new country of the size of Canada, is an immense undertaking. With much of the immediate development taking place in forest-covered regions lying back from present settlement, regions where ground access is particularly onerous, special difficulties are to be encountered and must be surmounted.

It is here that the new science of mapping by the use of aerial photographs has proved its value and is fitting so well into Canada's necessities. It is a science of which Canadians may well be proud. For in Canada this science has received its greatest impetus and its greatest application toward the solution of national problems. Methods devised by the Topographical Survey and improved by them have been made use of in other parts of the world, where similar mapping problems have presented themselves. In the aerial mapping operations the aerial photographs are taken through the co-operation of the Royal Canadian Air Force of the Department of National Defence.

In the making of maps, of course, certain ground surveys are required in order to co-ordinate the air and surface operations. In this connection, the methods of mapping as carried on at present in the Topographical Survey have been largely reorganized of late years to take into account the requirements of the new science. In all the field operations it may be stated that the ultimate aim of producing a national topographic map of the entire Dominion is kept well in mind. Although certain classes of surveys may be carried on primarily for purposes which may seem far removed from such a program, they all contribute to this national undertaking.

Field operations were carried on during the year in all the provinces, in the Yukon Territory and in the Northwest Territories. In the prosecution of these field operations eighteen separate parties were employed and, in addition, three surveys engineers acted throughout the season as navigation officers with the planes of the Royal Canadian Air Force engaged in taking photographs for aerial mapping operations. Co-operation was also maintained with the provincial authorities in carrying on the work and in gathering topographic data for presentation upon the map sheets.

The area covered during the year by newly-issued topographical map sheets was 106,302 square miles. Of this amount, 71,898 square miles were covered by map sheets of the National Topographic series—standard, provisional, and exploratory editions—and the remainder by sheets of the Sectional Map series and in a few cases by other map sheets designed to meet special needs.

FIELD WORK

The field work of the Topographical Survey as performed during the fiscal year may be classified under the headings of control surveys, aerial surveys, ground topographical mapping (including photo-topographical mapping), legal surveys, land classification work, interprovincial boundary surveys, and precise declination surveys.

Control surveys are those which are made for the purpose of rectifying or correlating all other survey work of a less precise nature. In Canada, all primary control, both horizontal and vertical, is the particular function of the Geodetic Survey of Canada, to which all secondary control surveys are adjusted. One of the principal functions of the Topographical Survey is to provide mapping control for the topographical maps of Canada. Such mapping control surveys include triangulation, chained traverses, stadia traverses, and the determination of latitude and longitude values by astronomical observation. All of these are tied in and adjusted to points of the Geodetic Survey, wherever such exist, and form the basis on which all detailed topographical surveys are plotted. To-day most of the detailed topography is plotted from aerial photographs on which points established by control surveys have been identified. Control for new topographical mapping during the year comprised 884 miles of precise chained traverse, 935 miles of stadia traverse, the establishment of geographic positions by astronomical observations at eleven different points, and some triangulation.

Aerial surveys comprise the taking of aerial photographs, whether oblique or vertical, in co-operation with the Royal Canadian Air Force. During the year 48,025 square miles were covered by oblique and 26,230 square miles by vertical photographs. Ground topographical mapping includes the obtaining of topographic detail by the use of the plane-table, by the interpretation of aerial photographs, and also by photo-topographic and other methods. A total of 9,502 square miles was so covered. Legal surveys are carried on for defining boundaries for the administration of lands. Although such surveys extended into six of the provinces, and into the Yukon and Northwest Territories, the greater portion of the work during the past year was in the three Prairie Prov-

inces. Land classification surveys deal with the obtaining of particularized topographical information specifically relating to possibilities for settlement. In the work for the past season this was rather of a reconnaissance nature and had for its immediate object the determination of the advisability or otherwise of subdividing certain lands. Over 800 square miles were so investigated. The interprovincial boundary surveys refer in this report to the delimitation of a portion of the Manitoba-Ontario boundary; and the precise declination surveys include the taking of observations for the declination, or "variation", of the magnetic compass needle, and in a few cases for its declination and horizontal force component.

The following is a brief summary of some of the more outstanding items of the field work, given by provinces, excepting for the precise declination surveys which are treated separately.

Nova Scotia.—For control in later topographic mapping 148 miles of chain traverse (including some retracements of previous work) and 96 miles of spirit levelling were run, and 27 monuments were established on the ground. The interpretation of aerial photographs over portions of the southern tip of the peninsula comprising 2,140 square miles was completed, and 970 square miles were covered by vertical aerial photographs.

New Brunswick.—For control 290 miles of chain traverse and 310 miles of spirit levelling were run, and 72 monuments were established on the ground. The plane-table survey was completed for the Moncton two-mile sheet of the National Topographic Series which extends also into Prince Edward Island, and a field interpretation of aerial photographs made for another two-mile sheet lying to the west, a total of 1,880 square miles being so covered. Vertical aerial photographs were taken over an area of 1,125 square miles.

Prince Edward Island.—A special plane-table survey was undertaken in the vicinity of Malpeque bay for the production of map sheets, relating to the administration by the Department of Fisheries, of oyster beds in that vicinity. In connection with this work there was a total of 10 miles of chained traverse and 15 miles of spirit levels run, 65 monuments established, a small base measured, and 142 transit stations occupied for triangulation purposes. Other plane-table work related to the completion of the Moncton two-mile sheet referred to above. New mapping comprised 112 square miles.

Quebec.—For control 368 miles of chained traverse, 277 miles of spirit levels, and 32 miles of stadia levels were run, and 78 monuments were established. Latitude and longitude observations were made at 10 different stations. About 625 square miles of new mapping was done with plane-table supplemented by vertical aerial photographs. Some 8,860 square miles of new territory were covered by vertical aerial photographs. One historic site was surveyed.

Ontario.—For control 76 miles of chained traverse and 270 miles of spirit levels were run, 19 monuments were established, and observations for latitude and longitude were taken at one station. New mapping entailing the field interpretation of aerial photographs over 2,905 square miles in the Parry Sound-North Bay region was undertaken. Vertical aerial photographs over 4,780 square miles and oblique aerial photographs over 19,825 square miles of new territory were taken. In connection with the mapping work in Ontario the active participation begun three years ago by the province, in the national mapping program, has been continued with very satisfactory results. The control provided by field parties of the provincial Department of Surveys is an outstanding factor in the preparation of the map sheets issued in the province. Preliminary work was completed for the delimitation of that portion of the Ontario-Manitoba boundary extending from its point of intersection with the 12th base

line of the Dominion Lands system of survey to the east end of Island lake. This consisted of the running of a trial line over the portion covered, the final delimitation to be effected later. One historic site was laid out.

Manitoba.—Special work in the province of Manitoba consisted of the topographical mapping of 700 square miles in the Roseau River basin, adjoining the international boundary. This survey was required for the intensive study of certain problems of an international nature relating to the district. In carrying out this work 960 miles of spirit levels were run, 80 square miles of plane-table work undertaken, and 47 rock posts established in connection with vertical control. Vertical aerial photographs over 4,265 square miles and oblique aerial photographs over 14,700 square miles were taken. Miscellaneous legal surveys were performed in eleven different townships and, in addition, Indian reserves were surveyed at two different localities. The work in connection with the delimitation of the Ontario-Manitoba boundary is mentioned above under Ontario.

Saskatchewan.—For control purposes 585 miles of stadia traverses were run, astronomical observations for latitude and longitude were taken at three stations, and 61 monuments were established on the ground. Vertical aerial photographs over 355 square miles and oblique aerial photographs over 13,500 square miles were taken. Miscellaneous legal surveys were performed in 17 different townships and in one Indian Reserve. Some 64,000 acres of land lying east of Cold lake were covered by land classification surveys.

Alberta.—Subdivision of lands for settlement was carried on in a number of townships in the Peace River district. The territory subdivided was largely determined as a result of land classification surveys, some 453,760 acres being so classified during the year of which 151,200 acres were subsequently subdivided. Other miscellaneous legal surveys were carried on in 14 other localities by officers of the Topographical Survey.

British Columbia.—For control purposes 350 miles of stadia traverse were run, along which also stadia levels were taken. Co-operation was maintained with the provincial Government in the survey of the Pacific Great Eastern Railway Block north of Prince George. Vertical aerial photographs were taken over about 5,000 square miles of this area, which with other areas so covered make up a total of 5,875 square miles. Some 1,140 square miles were covered by ground-mapping—largely photo-topographic—methods. A survey of certain Indian reserves was made in the Railway Belt.

Yukon Territory.—A survey of 40 miles of road from Mayo to Dawson was made under contract, the engineer in charge not being a member of the staff.

Northwest Territories.—Miscellaneous legal surveys were carried on by an officer of the Survey at various settlements along the Mackenzie River system from Fort Smith to Aklavik. Under instructions from the Survey, a Dominion Land surveyor on the staff of the North West Territories and Yukon Branch made a survey of some group lots on Charlton island in James bay.

Precise Declination Surveys.—During the year the Topographical Survey made some 1,600 precise measurements of the true direction of the compass needle in Canada in conjunction with its other work, bringing the total number to 26,000. These observations were begun in 1880 and are taken at very little expense as such measurements require but a few minutes of time when the surveyors are already on the ground with their surveying instruments and have data available regarding azimuth. Since the needle of the magnetic compass does not point true north but more or less to the east or west at different

places, this work is of great practical value in a large, new country such as Canada for surveyors, airmen, navigators, explorers, miners, prospectors, timber cruisers, settlers, foresters, and hunters. The work was carried on in close co-operation with the Meteorological Service of Canada, the Dominion Observatory, the Ontario Department of Surveys, the North West Territories and Yukon Branch of the Department of the Interior, and various provincial governments and surveyors. During the 1929 season, the Ontario Department of Surveys made about 200 such measurements and the North West Territories and Yukon Branch about 400. The information is published in the form of declination charts on the map sheets of the National Topographic series and the Sectional Map series, in order that it may be shown in the most readily accessible and convenient form for compass users. Every five years it is published in the form of a magnetic declination chart of Canada.

PRODUCTION OF MAPS

All survey returns after being compiled into a form suitable for the preparation of maps, are drafted, photographed, and printed in colours on lithographic presses in quantities sufficient for distribution. Advance copies or copies on a definite scale for plotting are made in the form of photographic prints. Other work in this connection entailing the use of the photographic equipment, is done as required. Maps of important urban areas or of areas of special interest are built up in relief.

Editions of 71 maps and 50 editions of township and townsite plans were printed and 31 relief maps were made. Included in this list were 12 map sheets of the National Topographic series.

PHYSICAL TESTING LABORATORY

At the request of the Commissioner of Customs the laboratory undertook the determination of some refractive indices of samples of ethyl and methyl alcohols. The work extended over a considerable period and involved a large number of observations. It is proposed to utilize the results in the analytical work of the Customs and Excise Laboratory. Further investigations are planned to include observations with isopropyl alcohol, now being employed in cheap perfumes, etc.

The one-metre nickel rule of the Laboratory, No. 306, has been formally adopted by Order in Council as the Dominion Standard for the International Metre, in accordance with the provisions of the *Weights and Measures Act*. This rule is a high grade precision standard, and having been compared three times directly with the International Standard measures at Sevres (the last occasion being during the year under review), it is suited in every way to be the legal reference standard of the Dominion.

During the year the laboratory certified 503 hydrometers, the majority of these being for the Department of National Revenue.

A bulletin has been prepared describing the characteristics, adjustment, use, and testing of aneroid barometers and altimeters.

As in former years assistance has been rendered to many different organizations, considerably more than one-half the work of the Laboratory being conducted on behalf of other Government departments or on behalf of external organizations, on a repayment basis.

REGISTRATION, RECORDS, AND DISTRIBUTION

Survey returns received for examination—from surveyors in the field, railway companies, and provincial governments—and entered in the different registers and plotted in the various index maps, comprise 513 books of field notes,

525 plans, and 1,403 miscellaneous returns. During the year, 339 new books and 613 new plans were placed on record, the total number on official record now being 20,813 books and 37,075 plans.

There were distributed 68,819 copies of the various maps of the Topographical Survey, 6,026 publications, and 13,360 official plans of townships, townsites, etc.

INTERNATIONAL BOUNDARY COMMISSION—CANADIAN SECTION

It was with great regret that the commission learned of the untimely death on April 9, 1929, of the United States Commissioner, the late Colonel E. Lester Jones. While Colonel Jones had not been in good health for some time previous, his sudden end was quite unexpected and was a distinct shock. Mr. Jas. H. Van Wagenen, formerly engineer to the United States section of the commission, was appointed commissioner by President Hoover on May 3, to succeed the late Colonel Jones.

A conference between the Canadian commissioner and the engineer to the United States section of the commission was held in Washington in April, 1929, when a division of the field work to be done during the following summer was agreed upon. A second conference was held in Ottawa in November, 1929, when details concerning the completion of the joint reports required by the treaty of 1908 were discussed.

As a result of the first conference, above referred to, the United States section undertook the following work: to erect monuments of a special type to mark the points where the boundary is crossed by recently constructed highways, at Emerson, Manitoba; and Wild Horse, Alberta; with the co-operation of an engineer from the Canadian section of the commission, to locate and mark the international boundary in the international tunnels at Sarnia and Windsor, and on the Ambassador international bridge between Detroit and Sandwich; to mark the boundary on the bridges across the Niagara river, where the locations had already been made in 1927; to repair certain monuments on the Quebec-Vermont boundary and on the St. John river; and to locate and mark the boundary on the international bridges across that river.

The Canadian section undertook to complete the reopening of the boundary vista and the repairing of the monuments on the southwest and south lines of the Quebec-Maine boundary.

Due largely to unusually favourable weather the Canadian party on the Quebec-Maine boundary was able to complete this work by the end of August.

In addition to the above the Department of Marine and Fisheries on behalf of the commission installed lights on the boundary range marks at Point Roberts. These marks range the first course of the boundary in the strait of Georgia and were erected in 1928, in the interests of the fishing industries of both countries.

In July, 1929, a conference was held in Ottawa between members of the staffs of the two sections of the commission. At this meeting certain final details for the joint report on the Ontario-Minnesota section of the boundary were decided upon and a division of the work of computation for the joint report on the 49th parallel boundary was made.

Copy for the report on the Ontario-Minnesota section of the boundary was put into the hands of the printers.

During the year fourteen boundary maps were printed and signed by the commissioners.

Survey data, photographs, maps and other information regarding the boundary were supplied to the Topographical Survey, the Geodetic Survey, the Geological Survey, the Natural Resources Intelligence Service, the Department of

State for External Affairs, the Department of National Revenue, the Department of Public Works, the Railway Commission; various departments of the provinces of New Brunswick, Ontario, and British Columbia; the War Office, London; and to a large number of hydro-electric and mining corporations, engineers, publicists, and private persons.

The office work of the staff during the year has been largely devoted to supplying the information above mentioned, to adjusting survey data, computing geographic positions, making triangulation sketches, and doing other related work in preparation of a joint report on the 49th parallel section of the boundary. Work was also done in completing the maps of the Ontario-Minnesota section of the boundary.

AERIAL SURVEYS DIVISION

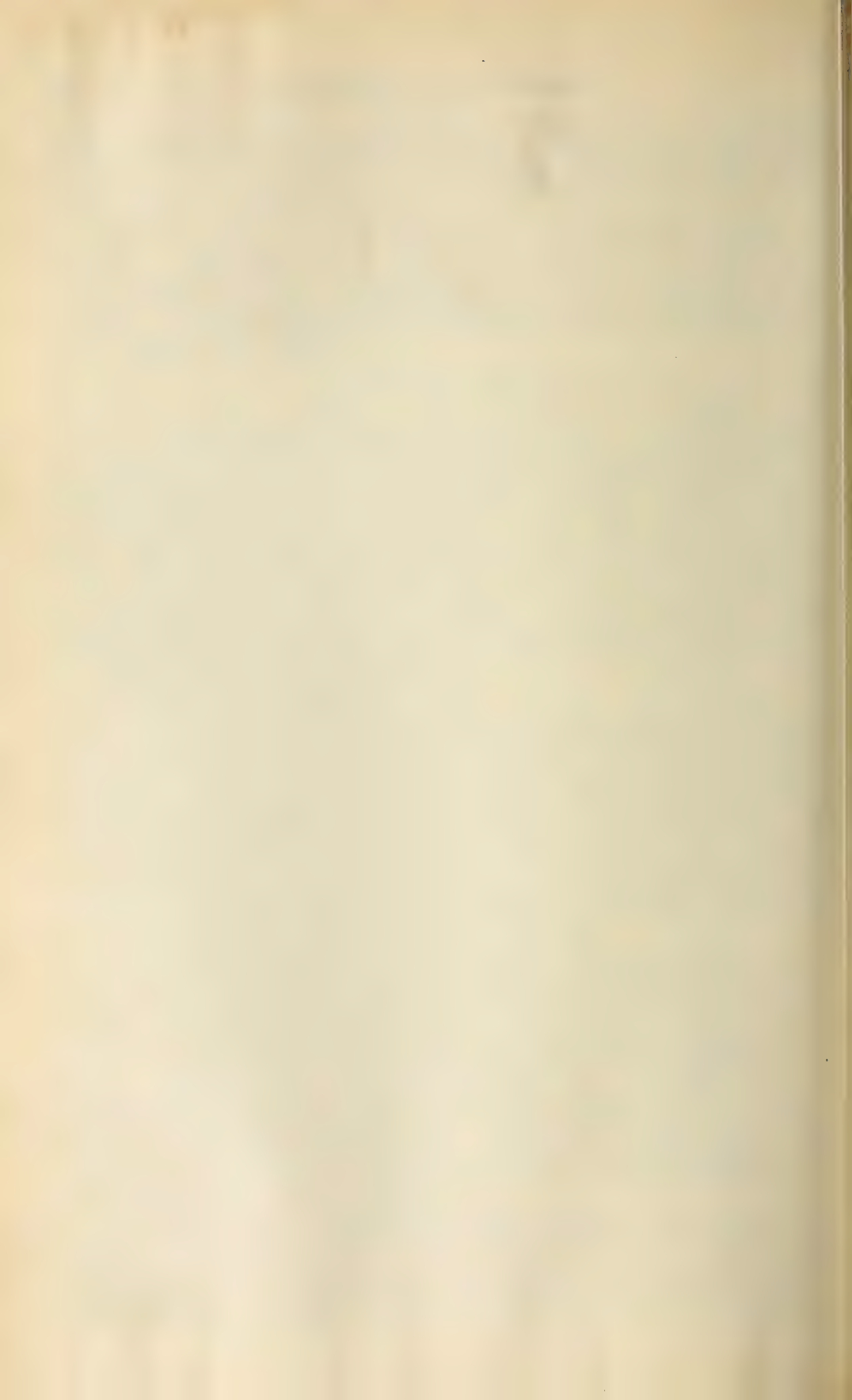
The Aerial Surveys Division of the Surveys Bureau was organized a little over a year ago to assist the Director General in carrying out the departmental air program as approved by the Departmental Air Committee and Sub-Committee. Aerial photography and surveying have changed radically in their character during the last few years. During the early stages of the work attention was chiefly concentrated on working out efficient methods of aerial mapping. This phase of aerial surveying has since been placed on a production basis. At the same time a wide field in the application of aerial photography and aerial surveying to engineering problems, to the study of water-powers, forestry, geology, and to geodetic reconnaissance has been opened up. The Aerial Division of the Surveys Bureau gives special attention to these new developments and provides an experienced staff whose services are available to all interested branches and departments.

The work of the Aerial Surveys Division, therefore, included in the first instance, the administrative work in connection with allocation of aircraft and equipment, the preparation, checking, and amending of instructions for photographic operations, the receipt, inspection and transmission of aerial photographic prints and, in general, keeping in constant contact with the various branches and departments using aerial surveys on the one hand and with the Air Force on the other, to insure that the available equipment is used to the best advantage and that it is fairly distributed among the various organizations. These duties require not only constant care and attention but a broad view of the whole aerial situation as it develops during the season. The Aerial Division is in fact the chief point of contact between the Civil Air Force and all the various organizations which it serves in this field.

On the technical side of the work, the services of the staff are always available to advise and assist the different branches and departments in the utilization of aerial methods to meet their particular requirements. During the past year several major developments in aerial surveying have been originated by this division. These include the application of aerial methods to geodetic transportation and reconnaissance, a development which is of the greatest value in extending and speeding up geodetic operations. Experiments in connection with the national inventory of forest resources are now under way which promise to be an important factor in that great undertaking. A third new field of operation, also in course of development is the use of aerial photographs for hydrographic surveying, experimental work for which is now being undertaken in co-operation with the Hydrographic Survey.

In addition to work in connection with other departments there are numerous calls and requests from corporations and private individuals who look to this office for advice in connection with aerial work. In this connection several articles and addresses were prepared for presentation to the Engineering Institute, and other organizations.





DOMINION OF CANADA

REPORT OF THE DEPARTMENT

OF

IMMIGRATION AND COLONIZATION

FOR THE

FISCAL YEAR ENDED MARCH 31, 1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931



*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief
of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the report of the transactions of the Department of Immigration and Colonization for the fiscal year ended March 31, 1930.

Respectfully submitted,

CHARLES STEWART,
Acting Minister of Immigration and Colonization.

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REPORT

OF THE

DEPARTMENT OF IMMIGRATION AND COLONIZATION

1929-30

DEPUTY MINISTER, W. J. EGAN

The report for the fiscal year 1929-30 is the thirteenth annual report to be presented since the department was organized. An effort is made to present from year to year in the statistical tables, a picture of immigration as it can be told by statistics. Attention has been called in former reports to the difficulties of comparison between pre-war and post-war immigration owing to changes in the nationalities of so many Europeans as the result of the war. In pre-war years more attention was paid to nationality, but in the post-war period stress has been placed rather upon racial origin.

Included in the report will be found individual reports of various branches of the department. A survey of work in the British Isles, on the Continent of Europe and in the United States, will be found in the reports of the Commissioner of Colonization, the Director of Publicity and the Director of European Emigration for Canada in London, England. The report of the Commissioner of Immigration presents some interesting facts regarding immigration inspection and deportation. There are also separate reports dealing with the work of the Women's Branch and with the immigration of juveniles.

In last year's report a reference was made to changing conditions in Canada and the effect of these in lessening the demand for immigrant labour. These changes continue from year to year especially in the direction of the displacement of labour by labour-saving machinery. Harvester excursions from Eastern to Western Canada which have been an annual feature of the western harvest for many years, have now practically ceased. The explanation of this is due to two facts, (a) the growth of centres of population in Western Canada from which harvest help can be drawn, and (b) the introduction of the harvester-combine and other agricultural power machinery. It is estimated that during the past three or four years the number of harvester-combines brought into use, has been sufficient to displace more than 30,000 harvesters.

As the year closes it becomes increasingly evident that Canada will not require as large an immigration of labourers as have come in during the past few years and steps have already been taken to curtail the movement of that class from Europe and also to ensure that the labourers brought in during 1930 will come as far as possible in the early spring months.

The incoming mail during the year numbered 482,333 pieces and outgoing mail, not including literature or other publicity matter, 561,754.

The annual report of the department does not contain the record of the colonization work done by the Land Settlement Branch, particulars of that work will be found in the annual reports issued by the Soldier Settlement Board.

A movement not included in the immigration figures is that of returned Canadians. This information was collected and tabulated first in the fiscal year 1924-25. The movement year by year since April 1st, 1924, is as shown in the following table. It includes only those Canadian citizens who left Canada to reside in the United States and who on returning to Canada declared their intention of resuming their residence in Canada. Those who left Canada on visits have not been included in this summary. It will be observed that Cana-

IMMIGRATION AND COLONIZATION

dian citizens are divided into three classes, (a) those born in Canada, (b) British born who acquired Canadian domicile, and (c) alien born people who secured naturalization in Canada.

RETURNING CANADIANS

	Canadian born citizens	British subjects with Canadian domicile	Naturalized Canadians with domicile	Totals
Fiscal year 1924-25.....	36,473	4,487	2,815	43,775
" 1925-26.....	40,246	4,102	2,873	47,221
" 1926-27.....	49,255	5,326	2,376	56,957
" 1927-28.....	35,137	3,280	1,470	39,887
" 1928-29.....	30,008	2,795	995	33,798
" 1929-30.....	26,959	2,030	841	29,830

TABLE 1—Immigration to Canada, from 1881 to 1930

		From British Isles	From United States	From Other Countries	Totals
Calendar year	1881.....	17,033	21,822	9,136	47,991
"	1882.....	41,283	58,372	12,803	112,458
"	1883.....	45,439	73,508	9,677	133,624
"	1884.....	31,787	65,886	6,151	103,824
"	1885.....	18,591	57,506	3,072	79,169
"	1886.....	23,507	40,650	4,995	69,152
"	1887.....	31,104	41,046	12,376	84,526
"	1888.....	30,852	44,952	12,962	88,766
"	1889.....	19,384	67,896	4,320	91,600
"	1890.....	21,793	50,336	2,938	75,067
"	1891.....	22,042	52,516	7,607	82,165
"	1892.....	22,636	.....	8,360	30,996
"	1893.....	20,071	.....	9,562	29,633
"	1894.....	16,004	.....	4,825	20,829
"	1895.....	14,956	.....	3,834	18,790
"	1896.....	12,384	.....	4,451	16,835
"	1897.....	11,383	2,412	7,921	21,716
"	1898.....	11,173	9,119	11,608	31,900
"	1899.....	10,660	11,945	21,938	44,543
Six months ended June 30,	1900.....	5,141	8,543	10,211	23,895
Fiscal year ended June 30,	1901.....	11,810	17,987	19,352	49,149
"	1902.....	17,259	26,388	23,732	67,379
"	1903.....	41,792	49,473	37,099	128,364
"	1904.....	50,374	45,171	34,786	130,331
"	1905.....	65,359	43,543	37,364	146,266
"	1906.....	86,796	57,796	44,472	189,064
Nine months ended March 31,	1907.....	55,791	34,659	34,217	124,667
Fiscal year ended March 31,	1908.....	120,182	58,312	83,975	262,469
"	1909.....	52,901	59,832	34,175	146,908
"	1910.....	59,790	103,798	45,206	208,794
"	1911.....	123,013	121,451	66,620	311,084
"	1912.....	138,121	133,710	82,406	354,237
"	1913.....	150,542	139,009	112,881	402,432
"	1914.....	142,622	107,530	134,726	384,878
"	1915.....	43,276	59,779	41,734	144,789
"	1916.....	8,664	36,937	2,936	48,537
"	1917.....	8,282	61,389	5,703	75,374
"	1918.....	3,178	71,314	4,582	79,074
"	1919.....	9,914	40,715	7,073	57,702
"	1920.....	59,603	49,656	8,077	117,336
"	1921.....	74,262	48,059	26,156	148,477
"	1922.....	39,020	29,345	21,634	89,999
"	1923.....	34,508	22,007	16,372	72,887
"	1924.....	72,919	20,521	55,120	148,560
"	1925.....	53,178	15,818	42,366	111,362
"	1926.....	37,569	18,778	39,717	96,064
"	1927.....	50,378	21,025	72,588	143,991
"	1928.....	51,552	25,007	75,038	151,597
"	1929.....	59,497	30,560	77,665	167,722
"	1930.....	64,962	30,727	67,599	163,288

IMMIGRATION AND COLONIZATION

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TABLE 2.—Statement of Immigration to Canada for the Period July 1, 1900, to March 31, 1910

	Fiscal Years										Totals
	1900-1901	1901-1902	1902-1903	1903-1904	1904-1905	1905-1906	Nine months ended March 31, 1907	1907-1908	1908-1909	1909-1910	
British—											
English.....	9,331	12,783	32,087	36,003	48,847	65,135	41,156	90,380	37,019	40,416	413,157
Irish.....	933	1,311	2,236	3,128	3,948	5,018	3,404	6,547	3,609	3,940	34,124
Scotch.....	1,476	2,853	7,046	10,552	11,744	15,846	10,729	22,223	11,810	14,706	108,985
Welsh.....	70	312	423	691	770	797	502	1,032	463	728	5,788
Total British.....	11,810	17,259	41,792	50,374	65,359	86,796	55,791	120,182	52,901	59,790	562,054
African, South.....				21	35	46	23	76	53	97	351
Arabian.....	98	70	46	58	48	19	31	50	4	14	438
Armenian.....	62	112	113	81	78	82	208	563	79	75	1,453
Australian.....	3	11	46	58	204	322	185	180	171	203	1,383
Austro-Hungarian.....	5,692	8,557	13,095	11,137	10,089	10,170	4,045	21,376	10,798	9,757	104,716
Brazilian.....				2	1	2	5	1	4		15
Bulgarian.....		1	7	14	2	71	179	2,529	56	657	3,416
Chinese.....	7	2				18	92	1,884	1,887	2,156	6,046
Doukhobor.....		12			24	204					240
Dutch.....	25	35	223	169	281	389					3,964
East Indian.....					45	387	394	1,212	495	741	5,195
Egyptian.....	1	3	1	3	2	18	2,124	2,623	6	10	50
Finnish.....	682	1,292	1,734	845	1,323	1,103	1,049	1,212	669	1,457	11,366
French and Belgian.....	492	654	1,240	2,392	2,539	2,754	1,964	3,885	2,658	2,637	21,215
German.....	984	1,048	1,887	2,985	2,759	1,796	1,903	2,377	1,340	1,353	18,612
Greek.....	81	161	193	191	98	254	545	1,053	192	452	3,220
Hebrew.....	2,765	1,015	2,066	3,727	7,715	7,127	6,584	7,712	1,366	3,182	43,529
Italian.....	4,710	3,828	3,371	4,445	3,473	7,959	5,114	11,212	4,228	7,118	55,458
Japanese.....	6				354	1,922	2,042	7,601	495	271	12,691
Malay.....		5									5
Maltese.....			2								2
Mennonite.....		52	38	11							101
Negro.....					5	42	108	136	73	7	371
Newfoundland.....			335	519	190	340	1,029	3,374	2,108	3,372	11,267
New Zealand.....			2	23	57	89	30	70	65	82	418
Persian.....		1	40	5	8	7	31	7	1	5	105
Polish.....	162	230	274	669	745	725	1,033	1,593	376	1,407	7,214
Portuguese.....					1	6			2	2	15
Roumanian.....	152	551	438	619	270	396	431	949	278	293	4,377
Russian.....	1,044	2,467	5,505	1,955	1,887	3,152	1,927	6,281	3,547	4,564	32,329
Scandinavian.....	1,750	2,451	5,448	4,203	4,118	3,859	2,296	4,073	2,082	3,782	34,062
Serbian.....	23		2	10	7	19	4	48	31	76	220
Spanish.....	14	1	7	5	10	12	29	61	32	42	213
Swiss.....	30	17	73	128	150	172	112	195	129	211	1,217
Syrian.....	464	1,066	847	369	630	336	227	732	189	195	5,105
Turkish.....	37	17	43	29	30	357	232	489	236	517	1,987
U.S.A. Citizens, via ocean ports.....	68	73		58	109	123	89	133	94	186	933
West Indian.....			23	55	77	194	90	278	159	203	1,079
Total Continental, etc.	19,352	23,732	37,099	34,786	37,364	44,472	34,217	83,975	34,175	45,206	394,378
From the United States.....	17,987	26,388	49,473	45,171	43,543	57,796	34,659	58,312	59,832	103,798	4,969
Total immigration.....	49,149	67,379	128,364	130,331	146,266	189,064	124,667	262,469	146,908	208,794	1,453,391

IMMIGRATION AND COLONIZATION

TABLE 3.—Statement of Immigration to Canada for the Period April 1, 1910, to March 31, 1920

	Fiscal Years										Totals
	1910-1911	1911-1912	1912-1913	1913-1914	1914-1915	1915-1916	1916-1917	1917-1918	1918-1919	1919-1920	
British—											
English.....	84,707	95,107	108,082	102,122	30,807	5,857	5,174	2,477	7,954	45,173	487,460
Irish.....	6,877	8,327	9,706	9,585	3,525	818	958	174	336	2,751	43,057
Scotch.....	29,924	32,988	30,735	29,128	8,346	1,887	2,062	473	1,518	10,997	148,058
Welsh.....	1,505	1,699	2,019	1,787	598	102	88	54	106	682	8,640
Total British.....	123,013	138,121	150,542	142,622	43,276	8,664	8,282	3,178	9,914	59,603	687,215
African South.....	86	144	22	56	23	11	1	4		23	370
Albanian.....				3	4						7
Arabian.....	3	2	10	16							31
Argentinian.....				2	5						9
Armenian.....	20	60	100	139	36						370
Australian.....	266	184	106	106	51	32	18	34	35	88	920
Austro-Hungarian.....	16,285	21,651	21,875	28,323	7,150	15	1		2	8	95,310
Belgian.....	1,563	1,601	1,826	2,651	1,149	172	126	19	48	1,532	10,687
Brazilian.....	13			5		2					20
Bulgarian.....	1,068	3,295	4,616	1,727	4,048	1					14,756
Chinese.....	5,278	6,247	7,445	5,512	1,258	88	393	769	4,333	544	31,867
Cuban.....				10	1	1	3	1			18
Doukhobor.....	41	24	108	4		186	151	94	59	154	6,287
Dutch.....	931	1,077	1,524	1,506	605	1					102
East Indian.....	5	3	5	88							15
Egyptian.....	3		7	5							44
Finnish.....	2,132	1,646	2,391	3,183	459	139	249	113	2		10,358
French.....	2,041	2,094	2,755	2,683	1,206	180	199	144	222	1,584	13,078
German.....	2,533	4,664	4,953	5,537	2,472	27	9	1	1	12	20,209
Greek.....	777	693	1,390	1,102	1,147	145	258	45	4	39	5,600
Hebrew.....	5,146	5,322	7,387	11,252	3,107	65	136	32	22	116	32,585
Italian.....	8,359	7,590	16,601	24,722	6,228	388	758	189	49	1,165	66,049
Japanese.....	437	765	724	856	592	401	648	883	1,178	711	7,195
Macedonian.....			128	402	19	4	109	144	2	405	1,213
Maltese.....		3	9	9				1	3		25
Mexican.....			36	13	9		1				59
Montenegrin.....	12	138	211	266	202	34	98	35	22	61	1,079
Negro.....	2,229	2,598	1,036	496	338	255	1,243	1,199	512	443	10,349
Newfoundland.....	116	61	39	24	21	18	12	13	15	31	350
New Zealand.....	19	19	20	19	7	3		2	2		91
Persian.....	2,177	5,060	9,945	9,793	1,976	8	12		4	76	29,051
Polish.....	13	6	9	58	8		1	1			99
Portuguese.....	511	793	1,116	1,504	361	4	4			21	4,314
Roumanian.....	6,621	9,805	18,623	24,485	5,201	40	25	42	42	51	64,935
Russian.....											
Scandinavian—											
Danish.....	535	628	798	871	326	167	145	74	44	233	3,821
Icelandic.....	250	205	231	292	145	15	9	3	12	11	1,173
Norwegian.....	2,169	1,692	1,832	1,647	788	232	303	235	91	19	9,168
Swedish.....	3,213	2,394	2,477	2,435	916	177	332	156	101	241	12,442
Serbian.....	50	209	366	193	220	6	1		1	12	1,058
Spanish.....	197	191	296	1,138	755	11	76	28	12	15	2,719
Swiss.....	270	230	246	269	209	42	30	12	11	100	1,419
Syrian.....	124	144	232	278	79	3	9	2			880
Turkish.....	469	632	770	187	33		5				2,097
U.S.A. Citizens, via ocean ports..	203	143	121	121	41	15	20	28	21	55	768
West Indian.....	455	393	495	719	389	47	315	307	223	66	3,409
Others.....				2	18	1				20	41
Total Continental, etc.....	66,620	82,406	112,881	134,726	41,734	2,936	5,703	4,582	7,037	8,077	466,738
From the United States.....	121,451	133,710	139,009	107,530	59,779	36,937	61,389	71,314	40,715	49,656	821,490
Total immigration.....	311,084	354,237	402,432	384,878	144,789	48,537	75,374	79,074	57,702	117,336	1,975,443

TABLE 4.—Statement of Immigration to Canada for the Period April 1, 1920, to March 31, 1925

	Fiscal years					Totals
	1920-1921	1921-1922	1922-1923	1923-1924	1924-1925	
British—						
English.....	47,687	23,225	19,188	37,030	26,466	153,596
Irish.....	6,384	3,572	3,668	9,719	9,379	32,722
Scotch.....	19,248	11,596	11,071	25,057	16,174	83,146
Welsh.....	943	627	581	1,113	1,159	4,423
Total British.....	74,262	39,020	34,508	72,919	53,178	273,887
African, South.....	63	32	41	60	87	283
Albanian.....	6	6	1	7	2	22
Arabian.....	8	5	2			15
Argentinian.....	4		4			8
Armenian.....	85	70	59	386	304	1,004
Australian.....	90	76	67	112	162	507
Austrian.....	26	14	23	82	75	220
Belgian.....	1,645	503	316	1,662	1,300	5,426
Bermudian.....	8	2	7	4	4	25
Brazilian.....					1	1
Bulgarian.....	4	27	19	267	69	386
Chilian.....					3	3
Chinese.....	2,435	1,746	711	674		5,566
Cuban.....				1		1
Czecho-Slovak.....	308	152	101	2,757	2,084	5,402
Dutch.....	595	183	119	1,149	1,637	3,683
East Indian.....	10	13	21	40	46	130
Egyptian.....	9	2		3	3	17
Esthonian.....			12	51	49	112
Finnish.....	1,401	274	1,171	7,640	4,261	14,747
French.....	861	332	281	370	326	2,170
German.....	137	178	216	1,769	2,215	4,515
Greek.....	357	209	177	292	237	1,272
Hebrew.....	2,763	8,404	2,793	4,255	4,459	22,674
Hungarian.....	23	48	23	364	1,052	1,510
Italian.....	3,880	2,413	2,074	6,379	2,349	17,095
Jamaican.....	18	13	30	24	8	93
Japanese.....	532	471	369	448	501	2,321
Jugo-Slav.....	89	180	136	1,306	1,620	3,331
Latvian.....			1	11	20	32
Lettish.....				6	2	8
Lithuanian.....		19	106	236	125	486
Luxemburg.....	16	5	3	85	35	144
Maltese.....	140	34	57	148	26	405
Mexican.....	1			1		2
Negro.....	144	42	42	42	39	309
Newfoundland.....	1,042	367	1,552	5,346	1,288	9,595
New Zealand.....	40	25	33	50	107	255
Persian.....	1	9	1	5	18	34
Polish.....	4,061	2,707	2,921	4,211	2,734	16,364
Portuguese.....	4		2		3	9
Roumanian.....	969	759	427	1,431	2,056	5,642
Russian.....	1,077	321	222	3,058	5,411	10,089
Scandinavian—						
Danish.....	511	541	382	1,355	1,830	4,619
Icelandic.....	50	31	21	27	49	178
Norwegian.....	429	480	507	2,424	2,550	6,390
Swedish.....	715	442	948	3,536	2,138	7,779
Spanish.....	202	6	15	39	3	265
Swiss.....	235	187	152	1,585	680	2,839
Syrian.....	443	123	91	286	210	1,153
Turkish.....	8	3	3	27	29	70
Ukrainian.....	491	89	36	832	26	1,474
U.S.A. Citizens, via ocean ports.....	110	67	32	134	96	439
Venezuelan.....			1	6		7
West Indian.....	110	24	44	37	37	252
Total Continental, etc.....	26,156	21,634	16,372	55,120	42,366	161,648
From the United States.....	48,059	29,345	22,007	20,521	15,813	135,750
Total immigration.....	148,477	89,999	72,887	148,560	111,362	571,285

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TABLE 5.—Statement of Immigration to Canada, for the Period April 1, 1925, to March 31, 1930

	Fiscal years					Totals
	1925-1926	1926-1927	1927-1928	1928-1929	1929-1930	
British..						
English.....	19,689	24,890	25,991	30,355	32,278	133,203
Irish.....	5,993	9,187	8,756	9,199	10,159	43,294
Scotch.....	10,295	14,296	14,341	16,137	18,640	73,709
Welsh.....	1,053	1,411	1,784	3,189	3,005	10,442
Total British.....	37,030	49,784	50,872	58,880	64,082	260,648
Albanian.....	14	17	30	28	26	115
Arabian.....	10	4	6	1	7	28
Armenian.....	85	65	44	17	14	225
Belgian.....	1,063	2,080	2,171	1,222	696	7,232
Bohemian.....	8	22	7	8	20	65
Bulgarian.....	47	126	249	282	296	1,000
Chinese.....		2				9
Croatian.....	1,006	1,085	902	990	771	4,754
Czech.....	805	721	714	846	434	3,520
Dalmatian.....	1			1	7	9
Dutch.....	1,180	1,674	1,928	1,599	1,755	8,136
East Indian.....	62	60	56	52	58	288
Estonian.....	28	92	110	92	117	439
Finnish.....	1,617	5,180	4,765	3,651	4,565	19,778
French.....	498	548	868	745	697	3,356
German.....	7,431	12,941	12,638	13,215	14,718	60,943
Greek.....	217	340	583	736	634	2,510
Hebrew.....	3,587	4,471	4,296	3,301	3,544	19,199
Herzegovinian.....		3	4			7
Italian.....	1,638	3,301	3,593	792	1,277	10,601
Japanese.....	421	475	478	445	194	2,013
Jugo-Slav.....	1,604	2,084	1,450	2,824	921	8,883
Korean.....		1				1
Lettish.....	24	60	77	74	70	305
Lithuanian.....	165	842	1,037	1,608	964	4,616
Magyar.....	4,112	4,863	5,318	6,242	5,688	26,223
Maltese.....	21	33	39	18	40	151
Mexican.....		1				1
Montenegrin.....		5				5
Moravian.....	6	36	33	4	23	102
Negro.....	53	51	88	96	195	483
Persian.....	11	6	4	1	1	23
Polish.....	2,535	6,505	6,733	8,269	6,610	30,652
Portuguese.....	3	14	7	12	13	49
Roumanian.....	265	292	237	284	383	1,461
Russian.....	925	1,127	948	908	765	4,673
Ruthenian.....	4,259	9,995	10,128	15,571	11,291	51,244
Scandinavian—						
Danish.....	1,112	2,030	3,835	3,311	2,685	12,973
Icelandic.....	53	30	28	24	6	141
Norwegian.....	1,072	3,384	4,327	2,434	2,256	13,473
Swedish.....	1,335	2,628	3,134	3,297	2,918	13,312
Serbian.....	454	885	411	390	375	2,515
Slovak.....	2,046	4,274	3,714	4,303	2,879	17,216
Spanish.....	12	29	28	18	26	113
Spanish American.....		6		3		9
Swiss.....	320	568	614	490	473	2,465
Syrian.....	134	218	82	75	61	570
Turkish.....	17	8	4	3	6	38
Total Continental, etc.....	40,256	73,182	75,718	78,282	68,479	335,917
From the United States.....	18,778	21,025	25,007	30,560	30,727	126,097
Total immigration.....	96,064	143,991	151,597	167,722	163,288	722,662

TABLE 6.—Statement of Immigration to Canada for the Fiscal Year ended March 31, 1930, showing Sex, Occupation and Destination

	Via Ocean Ports	From U.S.A.	Totals
Sex—			
Adult males.....	59,420	14,642	74,062
Adult females.....	41,261	8,047	49,308
Children under eighteen.....	31,880	8,038	39,918
Totals.....	132,561	30,727	163,288
Occupation—			
Farming class—			
Males.....	41,361	4,368	45,729
Females.....	6,264	1,151	7,415
Children.....	14,257	1,650	15,907
Labouring class—			
Males.....	6,617	2,270	8,887
Females.....	1,213	357	1,570
Children.....	2,244	346	2,590
Mechanics—			
Males.....	6,259	3,979	10,238
Females.....	1,888	901	2,789
Children.....	1,542	637	2,179
Trading class—			
Males.....	3,085	2,373	5,458
Females.....	1,414	968	2,382
Children.....	745	520	1,265
Mining class—			
Males.....	513	155	668
Females.....	94	20	114
Children.....	137	11	148
Female domestic servants.....	18,114	634	18,748
Other classes—			
Males.....	1,585	1,497	3,082
Females.....	12,274	4,016	16,290
Children.....	12,955	4,874	17,829
Destination—			
Nova Scotia.....	2,043	303	2,346
New Brunswick.....	1,629	849	2,478
Prince Edward Island.....	64	62	126
Quebec.....	18,808	5,109	23,917
Ontario.....	46,933	13,041	59,974
Manitoba.....	38,045	1,087	39,132
Saskatchewan.....	8,347	2,656	11,003
Alberta.....	10,193	4,777	14,970
British Columbia.....	6,482	2,770	9,252
Yukon Territory.....	16	65	81
Northwest Territories.....	1	7	8
Not given.....		1	1

TABLE 7.—Summary for the Fiscal Year 1929-30

Via ocean ports—	
Quebec.....	70,688
Halifax.....	42,584
St. John.....	14,631
North Sydney.....	1,176
Vancouver.....	1,038
Victoria.....	229
Montreal.....	516
Sydney.....	17
New York.....	1,607
Boston.....	23
Other ports.....	52
Totals.....	132,561
Via border ports, from the United States.....	30,727
Total immigration.....	163,288

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TABLE 8.—Statement of Immigration to Canada, for the Fiscal Year 1929-30, showing Racial Origin and Sex

Racial Origin	Ocean Ports				International Boundary				Grand totals
	Adult males	Adult females	Children under eighteen	Totals	Adult males	Adult females	Children under eighteen	Totals	
Albanian.....	21	2	3	26		1		1	27
Arabian.....		5	2	7	2			2	9
Armenian.....	2	9	3	14	10	3	3	16	30
Belgian.....	334	216	146	696	44	34	14	92	788
Bohemian.....	5	7	8	20	42	20	19	81	101
British—									
English.....	13,849	9,246	9,183	32,278	4,574	2,534	2,271	9,379	41,657
Irish.....	4,687	3,242	2,230	10,159	1,985	1,002	775	3,762	13,921
Irish.....	7,089	6,636	4,915	18,640	1,803	944	891	3,638	22,278
Scotch.....	1,402	671	932	3,005	195	67	70	332	3,337
Welsh.....		39	20	296	6	2	2	10	306
Bulgarian.....	237	227	210	771	4	2	5	11	782
Croatian.....	334	158	143	434	5	6	3	14	448
Czech.....	133	1	4	7					7
Dalmatian.....	2		554	1,755	357	182	164	703	2,458
Dutch.....	752	449	35	58					58
East Indian.....	2	21	10	117	2			2	119
Estonian.....	66	41							
Finnish.....	2,083	2,091	391	4,565	44	25	13	82	4,647
French.....	360	233	104	697	1,408	1,086	1,925	4,419	5,116
German.....	7,896	3,979	2,843	14,718	1,898	1,037	873	3,808	18,526
Greek.....	458	131	45	634	29	6	13	48	682
Hebrew.....	1,214	1,452	878	3,544	319	169	132	620	4,164
Italian.....	217	510	550	1,277	138	48	50	236	1,513
Japanese.....	70	83	41	194					194
Jugo-Slav.....	521	258	142	921	17	11	7	35	956
Lettish.....	29	27	14	70	4	2	2	8	79
Lithuanian.....	403	387	174	964	16	5	1	22	986
Magyar.....	2,621	1,555	1,512	5,688	51	35	13	99	5,787
Maltese.....	15	11	14	40	1			1	41
Montenegrin.....					2			2	2
Moravian.....	3	8	12	23	151	78	22	251	446
Negro.....	19	163	13	195	7	10	5	22	22
North American Indian.....				1					1
Persian.....					111	59	57	227	6,837
Polish.....	2,391	2,378	1,841	6,610					
Portuguese.....	4	8	1	13	5	6		11	24
Roumanian.....	147	135	101	383	18	12	32	62	445
Russian.....	357	230	178	765	75	48	50	173	938
Ruthenian.....	4,843	3,687	2,761	11,291	23	8	10	41	11,332
Scandinavian.....									
Danish.....	1,585	671	429	2,685	171	78	70	319	3,004
Icelandic.....	5	1		6	8	10	10	28	34
Norwegian.....	1,337	596	323	2,256	564	269	316	1,149	3,405
Swedish.....	2,049	568	301	2,918	407	171	158	736	3,654
Serbian.....	207	110	58	375	21	2	6	29	404
Slovak.....	1,357	850	672	2,879	21	14	11	46	2,925
Spanish.....	9	8	9	26	18	10	9	37	63
Spanish American.....						2	2	4	
Swiss.....	287	129	57	473	66	33	18	117	590
Syrian.....	15	28	18	61	19	16	16	51	112
Turkish.....	3	3		6	1			1	7
Total immigration.....	59,420	41,261	31,880	132,561	14,642	8,047	8,038	30,727	163,288

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TABLE 9.—Comparative Statement.—Immigration to Canada, via Ocean Ports, by Months, for the Fiscal Year 1929-30, compared with that of the preceding Fiscal Year

	1928-29				1929-30			
	M.	F.	C.	Totals	M.	F.	C.	Totals
April.....	15,943	4,283	3,830	24,056	15,088	5,305	5,144	25,537
May.....	13,136	4,214	3,195	20,545	11,555	6,113	5,217	22,885
June.....	9,384	4,294	3,305	16,983	7,297	5,682	5,059	18,038
July.....	7,280	3,102	2,357	12,739	5,368	4,284	3,329	12,981
August.....	16,127	3,373	2,259	21,759	4,131	4,198	3,279	11,608
September.....	3,306	3,334	2,284	8,924	2,483	3,816	2,280	8,579
October.....	1,571	2,310	1,493	5,374	1,751	2,886	1,851	6,488
November.....	1,386	2,113	1,390	4,889	1,415	2,491	1,582	5,488
December.....	1,136	1,611	1,224	3,971	1,014	1,593	1,007	3,614
January.....	1,017	893	681	2,591	736	909	511	2,156
February.....	1,381	1,012	826	3,219	1,150	1,096	575	2,821
March.....	7,750	2,481	1,881	12,112	7,432	2,888	2,046	12,366
Totals.....	79,417	33,020	24,725	137,162	59,420	41,261	31,880	132,561

TABLE 10.—Comparative Statement.—Immigration from the United States to Canada, by Months, for the Fiscal Year 1929-30, compared with that of the preceding Fiscal Year

	1928-29				1929-30			
	M.	F.	C.	Totals	M.	F.	C.	Totals
April.....	1,518	642	767	2,927	1,871	860	845	3,576
May.....	1,626	707	763	3,096	1,846	912	973	3,731
June.....	1,530	810	980	3,320	1,929	1,026	1,028	3,983
July.....	1,502	751	791	3,044	1,725	915	843	3,483
August.....	1,968	784	829	3,581	1,757	824	833	3,414
September.....	1,308	693	738	2,739	1,072	705	745	2,522
October.....	1,236	689	742	2,667	1,003	674	652	2,329
November.....	936	503	516	1,955	791	503	504	1,798
December.....	796	383	365	1,544	545	392	392	1,329
January.....	900	386	287	1,573	593	328	289	1,210
February.....	726	365	324	1,415	523	321	298	1,142
March.....	1,398	629	672	2,699	987	587	636	2,210
Totals.....	15,444	7,342	7,774	30,560	14,642	8,047	8,038	30,727

TABLE 11.—Comparative Statement.—Total Immigration to Canada, by Months, for the Fiscal Year 1929-30, compared with that of the preceding Fiscal Year

	1928-29				1929-30			
	M.	F.	C.	Totals	M.	F.	C.	Totals
April.....	17,461	4,925	4,597	26,983	16,959	6,165	5,989	29,113
May.....	14,762	4,921	3,958	23,641	13,401	7,025	6,190	26,616
June.....	10,914	5,104	4,285	20,303	9,226	6,708	6,087	22,021
July.....	8,782	3,853	3,148	15,783	7,093	5,199	4,172	16,464
August.....	18,095	4,157	3,088	25,340	5,888	5,022	4,112	15,022
September.....	4,614	4,027	3,022	11,663	3,555	4,521	3,025	11,101
October.....	2,807	2,999	2,235	8,041	2,754	3,560	2,503	8,817
November.....	2,322	2,616	1,906	6,844	2,206	2,994	2,086	7,286
December.....	1,932	1,994	1,589	5,515	1,559	1,985	1,399	4,943
January.....	1,917	1,279	968	4,164	1,329	1,237	800	3,366
February.....	2,107	1,377	1,150	4,634	1,673	1,417	873	3,963
March.....	9,148	3,110	2,553	14,811	8,419	3,475	2,682	14,576
Totals.....	94,861	40,362	32,499	167,722	74,062	49,308	39,918	163,288

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TABLE 12.—Statement of Immigration, via Ocean Ports, showing

Country of Birth	Totals	Bohemian	Moravian	Slovak	Hebrew	Arabian	English	Irish	Scotch	Welsh	Croatian	Dalmatian	Serbian	Belgian	Bulgarian	Czech	Finnish
Africa (British).....	123				5		86	3	22	1							
Africa (Not British).....	30				1		19	1	2								
Albania.....	29				1												
Argentina.....	24				2		17		2								
Asia.....	56				11												
Australia.....	231				1		170	19	28	2							
Austria.....	1,003			2	4		2	1						668			2
Belgium.....	797				4		2		1								
Brazil.....	7														225		
Bulgaria.....	231			3			22	1	8								1
Canada.....	38			1			6										
Central America.....	8						4		4								
Chili.....	9						38	1	6								
China.....	57											4				356	
Czecho-Slovakia.....	4,302	2	23	2,766	10	1	2		1								4
Denmark.....	2,682							304	399	158					4	1	4
England.....	29,377				210		28,202										2
Estonia.....	135				1		1	1									4,512
Finland.....	5,368				4		10							19			
France.....	568				1		11						2	1			
Germany.....	5,285	1			26		1								66		
Greece.....	673			1	1		13		7	1							
Guiana (British).....	37						5										
Holland.....	1,114						2										
Honduras (British).....	1						1							3			
Hungary.....	4,914			1	13												
Iceland.....	11																
India (British).....	256						136	23	36	2							
Ireland (Free State).....	2,584				4		103	2,453	22	1							
Ireland (Northern).....	6,834						68	6,727	39								
Italy.....	1,243				2		3										
Japan.....	202						6	2	1								
Jugo-Slavia.....	3,870			24	1				1			761	4	166	4		
Korea.....	1																
Latvia.....	182				48												
Lesser British Isles.....	193						174	4	14	1				1			
Lithuania.....	1,317				216			1	2								
Malta.....	46						5		3								
Mexico.....	22																
Newfoundland.....	1,661						1,588	20	24	4			3				
New Zealand.....	157						115	15	20	3							1
Norway.....	2,248	2						2									
Persia.....	3						2										
Poland.....	21,478	15			21	2,475	3	1								71	
Portugal.....	2						1										
Roumania.....	5,227				26	173			2			5		203	1	1	10
Russia.....	1,665				1	283	10		1								
St. Pierre and Miquelon.....	9								1								
Scotland.....	18,832					15	375	512	17,896	6							
South America.....	18						9		1	2							
Spain.....	16						3		4	1							4
Sweden.....	1,998						1		1								
Switzerland.....	601						1										
Syria.....	54						5									1	
Turkey.....	51				2		2										
Ukraine.....	152				21		109		18	44	3	1			2	4	25
United States.....	426				32		2		41	35	2,818						
Wales.....	3,710						811		6								
West Indies (British).....	277						86	6	6	1							
West Indies (not British).....	12						1								2		
Other European Countries.....	31					1											
Other Countries (British).....	49						37		2	3							
Other Countries (not British).....	24						3		1	3							
Totals.....	132,561	20	23	2,879	3,544	7	32,278	10,159	18,640	3,005	771	7	375	696	296	434	4,565

Country of Birth by Racial Origin, for the Fiscal Year 1929-30

[illegible]

IMMIGRATION AND COLONIZATION

TABLE 13.—Statement of Immigration from the United States, showing

Country of Birth	Total	Bohemian	Slovak	Hebrew	Arabian	English	Irish	Scotch	Welsh	North American	Indian	Spanish	American	Croatian	Montenegrin	Serbian	Belgian	Bulgarian	Czech	Finnish	French	German
Africa (British).....	19					13		1													1	
Africa (Not British).....	1			1																		
Albania.....	1								1													1
Argentina.....	5			1																		
Armenia.....	1																					
Asia.....	4				2																	1
Australia.....	39			1		23	7	7														
Austria.....	86	5		9			1										4	52			5	44
Belgium.....	62						1															2
Brazil.....	1						1															1
Bulgaria.....	7																		7			
Canada.....	1,379			13		410	171	178	3	1											469	75
Chili.....	7					2								4								1
China.....	9			1		5			2													
Czecho-Slovakia.....	34	4	18	1															6			2
Denmark.....	115																					1
England.....	1,732			12		1,661	15	21	16												2	
Estonia.....	1																					1
Finland.....	47					1														42		3
France.....	112					3															105	258
Germany.....	271			5		1	1	1														1
Greece.....	32						4	2	1													
Guiana (British).....	8																				1	1
Holland.....	53			1		2												1				
Honduras (British).....	3																				3	4
Hungary.....	62	1	1	5																		
Iceland.....	5																					
India (British).....	6					4	1	1													2	1
Ireland (Free State).....	216					3	209	1														
Ireland (Northern).....	165					2	158		4													
Italy.....	106																					
Japan.....	3					3																1
Jugo-Slavia.....	27			1			1									4	1	12				
Korea.....	1																					1
Latvia.....	9			2																	1	
Lesser British Isles.....	13					10			2													
Lithuania.....	8			4																		
Malta.....	1																				2	3
Mexico.....	20					3															1	
Newfoundland.....	73					61	7	3	1													
New Zealand.....	18					10	1	1														
Norway.....	238					1																6
Poland.....	146	1		62		1																
Portugal.....	2																					11
Roumania.....	46			13																		73
Russia.....	296			127		1																1
St. Pierre and Miquelon.....	1																					1
Scotland.....	920			1		16	12	889	2												1	3
South America.....	13					5																
Spain.....	12			1		1																1
Sweden.....	195					2																5
Switzerland.....	43																					
Syria.....	19																					
Turkey.....	15			2																		
Ukraine.....	5																					
United States.....	23,889	70	27	354		7,101	3,172	2,512	254	21		7	1	13	39	3	8	40		3,821	3,305	
Wales.....	74					11	3	2	58													1
West Indies (British).....	25					10	1	3													2	
West Indies (not British).....	11					3		1													1	
Other European Countries.....	2							1														
Other Countries (British).....	4					2		1														
Other Countries (not British).....	9			1		3		3														
Totals.....	30,727	81	46	620	2	9,379	3,762	3,638	332	22	4	11	2	29	92	10	14	82		4,419	3,808	

Country of Birth by Racial Origin, for the Fiscal Year 1929-30

[illegible]

IMMIGRATION AND COLONIZATION

TABLE 14.—Statement of Total Immigration to Canada, showing

Country of Birth	Totals	Bohemian	Moravian	Slovak	Hebrew	Arabian	English	Irish	Scotch	Welsh	North American Indian	Spanish American	Croatian	Dalmatian	Montenegrin	Serbian	Belgian	Bulgarian	Czech	Finnish
Africa (British).....	142				5		99	3	23	1										
Africa (Not British).....	31				3		19	1	2											
Albania.....	31				1															
Argentina.....	29				3		17		3											
Armenia.....	1																			
Asia.....	60				12	3	2		1											
Australia.....	270				2		193	26	35	2										
Austria.....	1,089	5		2	13		2	1								4	720			2
Belgium.....	859				4		2	2										232		
Brazil.....	8						2		1											
Bulgaria.....	238			3																1
Canada.....	1,417			1	13		432	172	186	3	1									
Central America.....	8						6													
Chili.....	16				1		6		4											
China.....	66						43	1	8										362	
Czecho-Slovakia.....	4,336	6	23	2,784	11	1								4						4
Denmark.....	2,797						2		1											4
England.....	31,109				222		29,863	319	420	174							4		1	4
Estonia.....	136																			2
Finland.....	5,415				1		2	1												4,554
France.....	680				4		13													
Germany.....	5,556	1		1	31		12	1	1							2	1			
Greece.....	705			1	1		1											66		
Guiana (British).....	45						17	2	8	1										
Holland.....	1,167				6		2										1			
Honduras (British).....	4						3									3				
Hungary.....	4,976	1		2	18															
Iceland.....	16																			
India (British).....	262						140	24	37	2										
Ireland (Free State).....	2,800				4		106	2,662	23	1										
Ireland (Northern).....	6,999						70	6,885	43											
Italy.....	1,349				2		3													
Japan.....	205						9	2	1											
Jugo-Slavia.....	3,897			24	2								765	4	1	178		4		
Korea.....	2						1		1											
Latvia.....	191				50		4													
Lesser British Isles.....	206						184	4	16	1										
Lithuania.....	1,325				220											1				
Malta.....	47						9	1	2											
Mexico.....	42						8		3											
Newfoundland.....	1,734						1,649	27	27	5										
New Zealand.....	175						125	16	21	3					3					1
Norway.....	2,486	2					1	2	21											
Persia.....	3						2													
Poland.....	21,624	16		21	2,537		4	1											71	
Portugal.....	4						1													
Roumania.....	5,273			26	186									5		203		1		10
Russia.....	1,961			1	410		11		2											
St. Pierre and Miquelon.....	10								1											
Scotland.....	19,752				16		391	524	18,785		6									
South America.....	31						14		3		2									
Spain.....	28				1		4		4	1										
Sweden.....	2,193						3		1											4
Switzerland.....	644						1													
Syria.....	73				5															
Turkey.....	66				4		2													
Ukraine.....	156				22															
United States.....	24,315	70		59	354		7,210	3,190	2,556	257	21		8		1	13	41	3	12	65
Wales.....	3,784				2		822	44	37	2,876										
West Indies (British).....	302				1		96	7	9	1										
West Indies (Not British).....	23						4		2											
Other European countries.....	33				1				1								2			
Other Countries (British).....	53						39	2	4											
Other Countries (Not British).....	33				1		6	1	6	1										
Totals.....	163,288	101	23	2,925	4,164	9	41,657	13,921	22,278	3,337	22	4	782	7	2	404	788	306	448	4,647

IMMIGRATION AND COLONIZATION

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Country of Birth by Racial Origin, for the Fiscal Year 1929-30

French	German	Greek	Dutch	Magyar	Italian	Jugo-Slav	Polish	Roumanian	Russian	Danish	Icelandic	Norwegian	Swedish	Swiss	Ruthenian	Albanian	Esthonian	Lettish	Lithuanian	Maltese	Portuguese	Spanish	Negro	Armenian	East Indian	Japanese	Persian	Syrian	Turkish
1	2		4	1								1		1									1						
3	1	3			1										126					1		1							
	4									1																			
1	25	1			2		12	1	1	1		1												1					
108	1,031		1	6	4	3	8	2	1						10		2											2	
469	77	2	20	5	3		4	1	4	2		8	3	1	3							1	6					1	
	1	2						5	1	1			1	1									1	1					
	341			436		27	4	1	2,739					1	1														
8	37		6		19		12		4	14			12	2	330														
	5							2	2				7	2															
611	18	5	1		2		3		1	15			18	3	2														
1	5,447	1	20	7	2		2	1	1				848	5	2														
	2	632		1			1	1																					
1	4	2	1,145	4						2																			
3	569		24,354		7			2		4	11	1			15								14						
2	2		1																										
2	5	1		1,333										3															
	1,721	1	3	197	831		1	129	1				1		31														
1	50						3	8							2														
	183						7	1																					
2	9		18																										
26		1			1		1		1																				
	2,052		9	9	6	6,551		619																					
	2,617			700	60	22	271	9																					
3	651		542	1	13	1	194		2				6	71	1,167														
1	6		1		5			2	4	1		3	1																
	1																												
24	192			9	1				9				2,165	1															
	3	18	1					1					1	416															
826	3,330	14	42	65	129	21	192	38	81	200	21	918	567	80	16													66	7
1	1			2	1										31													8	
8																												28	
2																													
7	22												1																
1	1		1																										
			14																										
116	18,526	682	2,458	5,787	1,513	956	6,837	445	938	3,004	34	3,405	3,654	590	11,332	27	119	78	986	41	24	63	446	30	58	194	1	112	

IMMIGRATION AND COLONIZATION

TABLE 15.—Statement of Immigration, via Ocean Ports, for the Fiscal Year 1929-30, showing Racial Origin and Month of Arrival

Racial Origin	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Albanian.....	1	1	4	5	1	2	2	2	1	1	4	2	26
Arabian.....						2			1	1	3		7
Armenian.....			1		3			1	2	4	2	1	14
Belgian.....	221	94	103	32	39	27	50	25	12	8	5	80	696
Bohemian.....		1	8		10			1					20
British—													
English.....	6,149	6,946	4,590	3,016	3,109	2,087	1,592	1,174	518	432	603	2,062	32,278
Irish.....	2,039	2,063	1,647	839	956	722	543	428	157	93	156	516	10,159
Scotch.....	3,178	3,263	3,143	1,898	1,861	1,553	1,163	910	388	210	281	792	18,640
Welsh.....	681	781	487	334	255	184	88	82	22	11	12	68	3,005
Bulgarian.....	29	33	25	33	26	32	19	17	16	17	11	38	296
Croatian.....	165	104	53	63	60	42	51	47	41	23	20	102	771
Czech.....	54	80	102	21	28	27	40	41	9	2	3	27	434
Dalmatian.....				1	6								7
Dutch.....	427	179	102	43	52	53	76	12	36	10	287	478	1,755
East Indian.....	13	5	2	1	1	1	18	2	2	9		3	58
Estonian.....	19	35	11	12	8	1	3	4	2		1	21	117
Finnish.....	456	624	550	406	610	561	328	264	300	105	118	243	4,565
French.....	98	65	93	71	79	87	54	34	21	21	11	63	697
German.....	3,136	2,060	1,671	2,079	1,028	573	518	445	287	217	229	2,475	14,718
Greek.....	75	59	48	45	63	57	42	42	56	26	53	68	634
Hebrew.....	230	163	278	298	283	391	327	293	421	230	255	375	3,544
Italian.....	126	167	112	95	95	111	111	143	93	79	54	91	1,277
Japanese.....	16	19	32	7	15	17	20	12	11	8	5	32	194
Jugo-Slav.....	289	184	54	72	7	49	39	33	12	8	8	126	921
Lettish.....	10	9	9	11	12	3	4	5	2		1	4	70
Lithuanian.....	195	101	94	97	89	94	42	49	42	19	19	123	964
Magyar.....	1,463	843	556	347	426	291	205	296	231	132	104	794	5,688
Maltese.....	1	4	7	3	13	1	6	2					40
Moravian.....	1		9		7		3					3	23
Negro.....	15	22	23	29	24	22	20	16	8	9	3	4	195
Persian.....					1								1
Polish.....	997	1,006	978	841	618	354	279	274	216	120	147	780	6,610
Portuguese.....			3	5	2		2						13
Roumanian.....	62	60	44	28	44	16	8	25	12	15	4	62	383
Russian.....	124	86	86	126	82	55	17	21	16	16	17	119	765
Ruthenian.....	2,128	1,886	1,833	1,105	867	582	380	393	385	176	225	1,331	11,291
Scandinavian—													
Danish.....	983	472	211	192	177	93	90	69	20	27	57	294	2,685
Icelandic.....	3			1									6
Norwegian.....	423	445	328	177	190	180	99	66	28	30	26	264	2,256
Swedish.....	813	575	437	235	188	139	81	76	80	43	38	213	2,918
Serbian.....	104	52	41	28	25	10	14	32	11	2	5	51	375
Slovak.....	715	321	224	255	179	126	111	122	138	37	39	612	2,879
Spanish.....	2	7		6	1	9	1						26
Swiss.....	93	64	33	119	22	19	34	22	6	10	7	44	473
Syrian.....	2	5		3	9		8	5					61
Turkish.....	1		1	1	1				1			1	6
Totals.....	25,537	22,885	18,038	12,981	11,608	8,579	6,488	5,488	3,614	2,156	2,821	12,366	132,561

TABLE 16.—Monthly Arrivals of Immigrants, by Occupation and Destination, at Ocean Ports, for the Fiscal Year ended March 31, 1930

Occupation and Destination	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Farming class.....	17,372	12,762	8,779	5,956	3,912	1,593	903	786	611	370	809	8,029	61,882
Labouring class.....	1,298	1,802	1,541	1,063	1,076	820	636	463	279	201	321	574	10,074
Mechanics.....	1,552	1,722	1,350	969	944	764	599	424	293	206	251	615	9,689
Trading and clerical classes.....	650	707	669	510	629	486	401	364	201	139	144	344	5,244
Mining class.....	128	131	123	84	67	49	41	27	16	11	26	41	744
Female domestic servants.....	2,175	2,560	2,311	1,819	1,734	1,802	1,366	1,175	680	409	566	1,517	18,114
Other classes.....	2,362	3,201	3,265	2,580	3,246	3,065	2,542	2,249	1,534	820	704	1,246	26,814
Totals.....	25,537	22,885	18,038	12,981	11,608	8,579	6,488	5,488	3,614	2,156	2,821	12,366	132,561
Nova Scotia.....	318	227	230	163	192	142	175	142	109	61	119	165	2,043
New Brunswick.....	524	360	255	104	75	55	31	36	27	33	17	112	1,629
Prince Edward Island.....	7	13	22	1	4	5	4		2		5	1	64
Quebec.....	2,480	3,004	2,474	1,730	2,054	1,735	1,309	1,099	708	467	424	1,324	18,808
Ontario.....	6,816	7,459	6,630	4,545	4,975	4,201	3,182	2,664	1,669	862	1,089	2,841	46,933
Manitoba.....	10,975	7,816	5,027	4,082	1,979	755	440	355	268	173	436	5,739	38,045
Saskatchewan.....	1,515	1,244	1,055	837	863	518	390	350	253	162	244	916	8,347
Alberta.....	2,080	1,701	1,415	988	847	598	500	482	341	189	278	774	10,193
British Columbia.....	822	1,061	918	530	619	570	457	360	237	209	207	492	6,482
Yukon Territory.....			12								2	2	16
Northwest Territories.....				1									1
Totals.....	25,537	22,885	18,038	12,981	11,608	8,579	6,488	5,488	3,614	2,156	2,821	12,366	132,561

TABLE 17.—Statement of Immigration from the United States, for the Fiscal Year 1929-30, showing Racial Origin and Month of Arrival

Racial Origin	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Albanian.....													
Arabian.....		1											1
Armenian.....		3										2	2
Belgian.....	6	6	23	22	5	1	1	1	1				16
Bohemian.....	9	12	11	15	5	6	10	4	1	1	4	9	92
British—							3	2		2	6		81
English.....	998	1,080	1,107	1,031	1,239	783	784	574	438	354	353	638	9,379
Irish.....	468	450	511	487	424	321	246	192	133	144	145	241	3,762
Scotch.....	417	415	503	465	376	286	229	245	130	157	130	285	3,638
Welsh.....	33	39	56	51	34	17	17	18	8	13	15	31	332
Bulgarian.....			1	1	6	2							10
Croatian.....	1	1			5	2							11
Czech.....			3	1	2					1		1	14
Dutch.....	75	99	97	66	96	52	50	33	19	30	29	57	703
Estonian.....										2			2
Finnish.....	14	14	15	9	2	5	7						82
French.....	425	620	557	433	445	382	385	284	187	190	182	329	4,419
German.....	528	479	508	398	346	333	273	206	222	140	126	249	3,808
Greek.....	5	2	7	5	6	8	1	2	8	2			48
Hebrew.....	49	83	71	46	66	50	67	51	41	34	33	29	620
Italian.....	23	31	40	26	38	18	13	17	6	6	9	9	236
Jugo-Slav.....	4		4	3	7	2	5	3		4		3	35
Lettish.....					4		2						8
Lithuanian.....	2	3	4	1	3		2					2	22
Magyar.....	10	13	11	14	13	9	5	2	2	1	1		99
Maltese.....			1										1
Montenegrin.....					1								2
Negro.....	30	43	50	52	15	13	14	8	5	3	4	14	251
North American Indian.....	2	4	3	3	2		3						22
Polish.....	24	25	32	34	21	14	16	17	5	10	8	21	227
Portuguese.....	1		1	4	1	2							11
Roumanian.....	6	10	15	3	6	3	2						62
Russian.....	28	17	5	24	13	25	31	4	8	5	3	10	173
Ruthenian.....	7	5	3	1	4	1	2	3	4	1	4	6	41
Scandinavian—													
Danish.....	37	50	39	17	26	14	14	16	11	18	32	45	319
Icelandic.....	2		3	9		1			6	1			28
Norwegian.....	228	115	138	127	115	89	71	59	45	33	29	100	1,149
Swedish.....	114	80	127	84	67	51	51	29	31	33	16	61	736
Serbian.....	3	1	3	8	4	5	3						29
Slovak.....	12	2	1	6	2	2		1	1	3		16	46
Spanish.....	3	2	4	5		5	6	1		7	2	2	37
Spanish American.....				4									4
Swiss.....	11	17	15	26	11	8	11	4	5	5	2	2	117
Syrian.....	1	9	5	1	4	6	4	13	2	1	1	4	51
Turkish.....				1									1
Totals.....	3,576	3,731	3,983	3,483	3,414	2,522	2,329	1,798	1,329	1,210	1,142	2,210	30,727

TABLE 18.—Monthly Arrivals of Immigrants from the United States, by Occupation and Destination, for the Fiscal Year 1929-30

Occupation and Destination	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Farming class.....	1,137	803	717	767	1,085	482	471	306	221	142	217	821	7,169
Labouring class.....	335	414	463	377	330	229	186	181	121	143	84	110	2,973
Mechanics.....	670	779	750	779	545	414	396	271	188	242	234	249	5,517
Trading and clerical classes.....	414	431	523	418	336	333	333	297	219	184	146	227	3,861
Mining class.....	22	37	31	27	21	10	10	9	5	3	5	6	186
Female domestic servants.....	56	70	104	81	63	50	34	28	27	22	40	59	634
Other classes.....	942	1,197	1,395	1,034	1,034	1,004	899	706	548	474	416	738	10,387
Totals.....	3,576	3,731	3,983	3,483	3,414	2,522	2,329	1,798	1,329	1,210	1,142	2,210	30,727
Nova Scotia.....	12	25	33	35	22	35	37	39	14	15	10	26	303
New Brunswick.....	59	105	92	71	85	70	105	80	73	45	36	28	849
Prince Edward Island.....	1	13	3	8	6	10	3	8	6	1	3		62
Quebec.....	438	665	606	504	539	497	477	323	257	226	225	352	5,109
Ontario.....	1,512	1,519	1,800	1,390	1,434	991	978	853	575	601	532	856	13,041
Manitoba.....	144	136	146	168	80	94	96	50	38	46	38	51	1,087
Saskatchewan.....	506	298	318	274	283	225	183	113	82	55	87	232	2,656
Alberta.....	633	667	680	628	623	361	227	168	182	101	102	405	4,777
British Columbia.....	270	300	292	384	329	231	220	164	102	116	109	253	2,770
Yukon Territory.....	1	3	13	20	13	8	3					4	65
Northwest Territories.....				1									7
Not given.....												1	1
Totals.....	3,576	3,731	3,983	3,483	3,414	2,522	2,329	1,798	1,329	1,210	1,142	2,210	30,727

TABLE 19.—Statement of Immigration, via Ocean Ports, showing Destination by Intended Occupation and Sex, for the Fiscal Year 1929-30

Destination	Totals	Farming Class				Labouring Class				Mechanics				Trading and Clerical Classes				Mining Class				Female Domestic		Other Classes			
		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		18 years and over		Under 18 years	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Nova Scotia.....	2,043	223	55	126	51	454	21	33	18	113	27	13	13	30	16	9	1	43	7	7	6	218	64	40	208	119	123
New Brunswick.....	1,629	419	155	416	215	63	4	10	3	40	10	2	3	15	8	2	2	5	1	1	.....	63	37	13	58	27	27
Prince Edward Island.....	64	28	3	3	3	1	1	.....	1	3	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	8	3	.....	4	3	2
Quebec.....	18,808	3,061	263	1,635	185	1,582	231	253	178	1,626	445	167	139	1,042	346	118	87	41	13	11	9	2,683	230	432	2,079	945	1,007
Ontario.....	46,933	8,554	1,115	2,734	819	3,185	731	820	515	3,356	1,115	497	453	1,437	775	205	188	228	43	33	24	6,656	820	707	5,773	3,110	3,040
Manitoba.....	38,045	22,340	3,339	2,889	2,210	560	50	55	46	373	85	34	35	185	75	20	20	13	2	2	6	3,698	210	79	819	467	433
Saskatchewan.....	8,347	2,485	524	762	412	118	21	29	18	177	37	24	13	64	31	4	8	9	3	4	1	1,150	128	58	1,036	649	582
Alberta.....	10,193	2,864	632	867	571	170	42	68	37	175	44	19	20	85	36	14	9	75	13	9	6	1,163	164	83	1,393	796	838
British Columbia.....	6,482	1,386	178	243	116	482	112	97	63	384	125	55	55	226	127	31	27	98	12	11	7	730	59	172	904	417	365
Yukon Territory.....	16	.....	.....	.....	.....	2	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Northwest Territories.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	132,561	41,361	6,264	9,675	4,582	6,617	1,213	1,365	879	6,259	1,888	811	731	3,085	1,414	403	342	513	94	78	59	16,399	1,715	1,585	12,274	6,533	6,422

TABLE 20.—Statement of Immigration, from the United States to Canada, showing Destination by Intended Occupation and Sex, for the Fiscal Year 1929-30

Destination	Totals		Farming Class				Labouring Class				Mechanics				Trading and Clerical Classes						Mining Class				Female Domestic		Other Classes						
	18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years and over		18 years and over		Under 18 years and over		18 years and over		Under 18 years and over		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Nova Scotia.....	303	20	5	7	6	1	2	21	3	8	1	9	2	2	3	.....	.....	.....	.....	.....	.....	6	1	15	56	75	51	.....	.....	.....	.....
New Brunswick.....	849	63	17	26	21	87	20	14	21	75	19	8	11	23	17	3	4	1	.....	.....	.....	18	5	29	113	132	122	.....	.....	.....	.....
Prince Edward Island.....	62	8	.....	.....	1	.....	.....	.....	.....	2	1	2	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	4	6	23	11	.....	.....	.....	.....
Quebec.....	5,109	218	72	65	47	399	67	38	35	642	142	66	61	413	141	43	42	7	1	.....	.....	.....	.....	.....	250	721	738	759	.....	.....	.....	.....
Ontario.....	13,041	1,047	153	104	105	1,193	178	94	65	2,203	470	151	131	1,394	562	130	139	30	2	4	222	22	864	1,969	888	921
Manitoba.....	1,087	180	53	43	41	43	9	3	2	122	42	27	24	114	50	21	21	17	3	2	2	16	.....	.....	59	101	50	42	.....	.....	.....	.....
Saskatchewan.....	2,656	936	246	216	190	107	12	8	7	127	32	8	11	79	36	16	15	2	.....	.....	.....	66	7	76	220	120	119	.....	.....	.....	.....
Alberta.....	4,777	1,501	454	330	267	247	29	24	10	505	93	16	32	122	55	17	13	9	1	1	.....	87	8	71	432	250	203	.....	.....	.....	.....
British Columbia.....	2,770	394	151	109	72	175	40	11	12	272	97	40	38	216	103	24	28	51	11	1	1	35	.....	129	395	174	192	.....	.....	.....	.....
Yukon Territory.....	65	.....	.....	.....	.....	9	1	.....	.....	8	1	.....	.....	2	1	1	1	34	1	.....	.....	.....	.....	.....	.....	2	2	2	.....	.....	.....	.....
Northwest Territories.....	7	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not given.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	30,727	4,388	1,151	900	750	2,270	357	194	152	3,979	901	326	311	2,373	968	255	265	155	20	8	3	575	59	1,497	4,016	2,452	2,422	.....	.....	.....	.....	.....

TABLE 22.—Statement of Immigration, for the Fiscal Year 1929-30, showing Nationality and Sex

Nationality	Totals	Via Ocean Ports				Totals	From the United States			
		18 years and over		Under 18 years			18 years and over		Under 18 years	
		M.	F.	M.	F.		M.	F.	M.	F.
Albanian.....	28	20	3	4	1	1		1		
Arabian.....	33	20	10	2	1					
Argentinian.....	16	11	2	2	1	2	2			
Armenian.....	1		1							
Atlantic and Pacific Islands (not British).....	3			1	2					
Austrian.....	1,028	607	295	52	74	25	15	9		1
Belgian.....	794	378	243	96	77	23	14	8		1
Brazilian.....						1		1		
British.....	64,962	27,337	19,146	10,968	7,511	3,121	1,873	1,013	111	124
Bulgarian.....	291	234	38	16	3	4	2	2		
Chilian.....	1		1							
Colombian.....	1					4		2	1	1
Costa Rican.....	1	1			1					
Cuban.....	5	1	1	3						
Czecho-Slovak.....	4,327	1,998	1,271	558	500	17	10	7		
Danish.....	2,704	1,588	665	240	211	66	44	21	1	
Dutch.....	1,144	564	255	181	144	27	22	5		
Esthonian.....	145	82	53	3	7	2	1	1		
Finnish.....	5,421	2,567	2,227	317	310	21	14	6	1	
French.....	531	281	175	43	32	68	49	18		1
German.....	5,721	3,782	1,189	306	354	132	84	42	2	4
Greek.....	628	452	118	30	28	3	2	1		
Hungarian.....	4,914	2,328	1,227	655	704	13	6	7		
Icelandic.....	9	7	2			2	2			
Italian.....	1,192	175	466	361	190	28	17	11		
Japanese.....	148	70	54	17	7					
Jugo-Slav.....	3,854	1,830	1,143	488	393	10	7	3		
Latvian.....	207	70	74	37	26	5	3	2		
Lithuanian.....	1,343	573	512	116	142	3	2	1		
Luxemburg.....	19	10	8		1					
Mexican.....	12			3	9	17	2	1	10	4
Norwegian.....	2,240	1,336	571	182	151	85	56	27	1	1
Paraguayan.....	1				1	2			1	1
Persian.....	1				1					
Peruvian.....	1		1			4			3	1
Polish.....	21,315	7,976	7,280	3,143	2,916	44	32	12		
Porto Rican.....						1		1		
Portuguese.....	2	1	1							
Roumanian.....	5,262	2,713	1,553	495	501	18	12	5		1
Russian.....	1,378	395	449	265	269	92	50	37	3	2
Spanish.....	9	3	5	1		8	3	1	1	3
Swedish.....	2,020	1,533	278	116	93	88	61	23	1	3
Swiss.....	675	424	175	41	35	28	15	9	4	
Syrian.....	56	14	26	9	7	7	3	4		
Turkish.....	16	5	7	2	2					
Ukrainian.....	4	3	1			4	3	1		
U.S.A. Citizens.....	96	31	20	21	24	26,751	12,236	6,706	3,995	3,814
Uruguayan.....	2			1	1					
Totals.....	132,561	59,420	39,546	18,865	14,730	30,727	14,642	7,988	4,135	3,962

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TABLE 24.—Immigration, via Ocean Ports, showing Age Groups by Racial Origin, Sex and Literacy for the Fiscal Year 1929-30																															
Racial Origin			10 to 14 years				15 to 19 years				20 to 24 years				25 to 29 years				30 to 39 years				40 to 49 years				50 years and over				
			Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		
	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	
Albanian.....																															
Arabic.....																															
Armenian.....																															
Austrian.....	11		8	1																											
Belgian.....	1																														
Bohemian.....																															
British—																															
English.....	1,064	3	694	2	4,212	4	1,133	1	4,225	5	1,748	1	3,010	6	1,817	1	2,959	7	2,596	1	1,269	9	1,252	1	584	5	887	7			
Irish.....	238	2	185	1	1,056	3	634		1,609	3	956	2	1,048	2	698		904	3	582	1	384		1,271	3	156	3	183	2			
Scottish.....	484	1	375	1	1,844		1,239		2,275		1,674		1,594		1,303		1,411		1,336		610		674		354	1	515	2			
Welsh.....	119		65	1	1,382		1,077		469		127		313		117		309		223		117		83		25		37	1			
Bulgarian.....																															
Croatian.....	3	2	6	30	33	4	17	9	68	1	68	1	147	76	76	5	50	10	10	4	9	4	3	2	7	2	5				
Czech.....	8		2	2	11		20		41		48		47	43	43		32	39	39		4		5		5		2				
Dalmatian.....																															
Dutch.....	62	2	52		133		59		245		91		167	93	93		160		126		63		48		43		46				
East Indian.....	6	1			13	1	3		10		5		2	1	2		2		4		1		2		1		4				
Estonian.....																															
Finnish.....	26		25		149		324		717		666		603	549	549		527		461		141		81		36		14				
French.....	7		6		53		31		86		61		91	55	55		92		46		28		27		94		19				
German.....	172	4	155	5	700	1	557	1	2,379	2	1,205	1	2,233	2	995	2	2,077	1	899	3	537	2	236	2	153	2	124	4	5	4	
Greek.....	7	1	1		19		31		147		435		309	22	22	2	74		10		4		4		24		7				
Hebrew.....	65	1	69	3	314	1	322	1	327	1	327	1	182	288	288	2	264		225	5	70	1	99	11	89	7	54				
Italian.....	48	5	34	5	216	1	67	1	36		107		92	103	103		25		117	11	22		47	15	53	7	34	18			
Japanese.....	3		4		26		21		30		30		24	23	23		11		12		1		3		1		2				
Japanese.....	3		4		26		21		30		30		24	23	23		11		12		1		3		1		2				
Jugo-Slav.....	2		2		3		7		146		87		205	91	91	2	127		42	2	33		10		1		2				
Letish.....	5		8		34		35		98		122		139	132	132		109		86	1	77		11		3		1				
Lithuanian.....	60		78		155		143		499		411		898	475	475	1	943		456	4	179	1	78		11		18				
Magyar.....	1		1		3		3		6		3		1	2	2		4		2		1		1		1		2				
Maltese.....									2		2		1	36	36		3		35		2		5		1		2				
Moravian.....									9		9		1																		
Negro.....																															
Persian.....	76	7	65	3	262	4	250	4	533	4	900	16	931	5	659	20	594	5	396	22	126	1	79	13	23	3	33	15			
Polish.....																															
Portuguese.....																															
Romanian.....	11		2		16		15		19		30		44	37	37		55		43		16		10		1		1				
Russian.....	5	1	7		55	1	92		92		58		111	59	59	14	72		43	13	30		11	5	5		4				
Ruthenian.....	89	8	100	15	582	12	435	17	1,088	4	1,207	52	1,784	8	968	74	1,200	8	596	101	322	3	133	54	43	14	33	40			
Scandinavian—																															
Danish.....	30	4	38	1	233		78		733		213		342	179	179		227		146		84		46		24		18				
Icelandic.....																															
Norwegian.....	20		30		225		61		486		158		321	157	157		222		170		96		43		43		13				
Swedish.....	20		22		314		118		825	1	171		453	133	133		388		104		123		29		45		15				
Slovak.....	24		19		55		100		376		291	2	610	277	277		308		168		19		19		3		6				
Serbian.....																															
Spanish.....	9		1		26		14		112		39		75	38	38		62		21		15		9		8		7				
Swiss.....	2		2		5		2		2		2		1	1	1		2		2		2		2		1		4				
Syrian.....	2		2		1		5		1		1		4																		
Turkish.....																															
Totals.....	2,687	42	2,068		42,111	249	28	9,945	36,170	902	19,111	125	94,106	934	26	9,543	136,133	502	26	9,167	177	4,423	18	3,359	111	1,785	50	2,138	155		

TABLE 23.—Immigration from the United States, showing Age Groups by Racial Origin, Sex and Literacy, for the Fiscal Year 1929-30

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Racial Origin	10 to 14 years				15 to 19 years				20 to 24 years				25 to 29 years				30 to 39 years				40 to 49 years				50 years and over			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.	Lit.	Ill.
Albanian.....																												
Arabian.....																												
Armenian.....																												
Belgian.....	3				2		2		1		1		2		2		3		3		1		5		8		6	
Bohemian.....	1				6		1		9		2		6		7		2		5		17		12		9		3	
British—																												
English.....	168		194	2	304		201	3	804	3	482	2	1,219		714		2,129		842		394		681		364		1	
Irish.....	70		82	1	99		73		164		209		587		296		379		154		255		138		2		1	
Scottish.....	94		57	1	79		80		276		174		507		250		402		174		233		151		2		1	
Welsh.....	3		7		9		8		11		12		54		16		53		12		35		11		3		5	
Bulgarian.....																												
Croatian.....	1				1		1						1		1		1		1		1		1		1		1	
Czech.....													2		2		2		2		2		2		2		2	
Dutch.....	15		16		20		1		66		51		34		3		113		62		34		53		31		1	
Estonian.....																												
French.....	2		1		3		1		7		8		6		9		15		9		3		3		1		1	
German.....	113	4	117	8	141		199	1	272	2	252	1	213	1	253	4	411	1	220	1	116	1	178	1	111	6	1	
Greek.....	106		77		129	1	106		325	1	210		195	1	276		538	2	372		170	1	246	1	119		1	
Hebrew.....	2		1		3		3		41		3		18		2		18		6		6		3		1		1	
Italian.....	13	1	9		18		16		42		56		43		47		112		62		16		35		11		1	
Jugo-Slav.....	5		2		7		12		24		19		29		9		44		28		1		10		1		1	
Letish.....					2		2		4		4		1		2		7		3		3		1		1		1	
Lithuanian.....																	1		1		1		1		1		1	
Magyar.....	3		2		9		8		5		3		3		1		1		3		6		1		1		1	
Moldese.....									9		11		8		1		1		1		1		1		1		1	
Montegrin.....									1		1		1		1		1		1		1		1		1		1	
Negro.....																												
North American Indian.....	1		6		7		5		24		17		35	1	13		47	1	25		34		5		3		3	
Polish.....	2		7		15		8		19		13		22		9		41		21		16		2		2		2	
Portuguese.....																	2		2		9		5		1		1	
Romanian.....	4		4		1		2		2		2		4		3		11		3		2		1		1		1	
Russian.....	5		5		2		4		8		12		6	1	7		19		11		25		11		1		1	
Ruthenian.....					2		2		2		1		3		3		6		2		8		1		1		1	
Scandinavian—																												
Danish.....	7		9		13		13		29		14		29		10		48		23		31		26		10		10	
Icelandic.....	1		1		2		1		1		1		3		3		5		1		1		1		3		3	
Norwegian.....	38		28		53		40		104		53		110		50		129		76		95		98		25		25	
Swedish.....	25		16		21		16		66		34		70		36		120		56		86		55		7		7	
Serbian.....																	7		7		7		1		2		2	
Slovak.....																	6		6		2		2		1		1	
Slovene.....																	11		2		3		3		1		1	
Spanish.....																	3		3		5		1		1		1	
Spanish American.....																	8		8		19		6		3		3	
Swiss.....	2		5		3		2		8		5		7		1		1		1		2		3		1		1	
Syrian.....	3		2		3		3		3		5		4		4		5		5		21		9		3		3	
Turkish.....																					3		1		1		1	
Totals.....	687	7	652	13	859	1	836	4	2,482	4	1,542	4	2,655	4	1,562	4	4,156	5	2,179	7	2,813	5	1,207	2	1,969	7	1,005	11

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TABLE 26.—Immigration via Ocean Ports, showing Language of Immigrants,

Racial Origin	French	English	German	Norwegian	Swedish	Icelandic	Flemish	Dutch	Danish	Finnish	Esthonian	Lettish	Lithuanian	Russian
Albanian.....		1												
Arabian.....														
Armenian.....		1												
Belgian.....	114	4	7				468	1						
Bohemian.....			1	2										
British—														
English.....		1 27,498	1					2	1					
Irish.....		8,892	1											
Scotch.....		15,713												
Welsh.....		2,494												
Bulgarian.....			1											
Croatian.....			7											
Czech.....		1	2											2
Dalmatian.....		3												
Dutch.....	1	40	177				7	893						273
East Indian.....		5												
Esthonian.....		3	4							1	90	2		9
Finnish.....		4	1	1	147		2		2	4,159				3
French.....	569	47	6				5							
German.....	12	48 12,015			4			4	25		1		4	89
Greek.....	1	14												
Hebrew.....	10	222	83		1			5				4	70	182
Italian.....	8	38	1				1							
Japanese.....														
Jugo-Slav.....			31											1
Lettish.....		1	8									43	1	4
Lithuanian.....		17	26										750	3
Magyar.....	1	2	60					1						
Maltese.....		11	2						1					
Moravian.....														
Negro.....	2	191												
Persian.....														
Polish.....	4	18	29				1						1	31
Portuguese.....	1	6												
Roumanian.....			40											3
Russian.....	2	24	13		1						1			507
Ruthenian.....		2	48							1	1	1	7	235
Scandinavian—														
Danish.....		48	16	3	8	3		1	2,317					
Icelandic.....						4			2					
Norwegian.....		48	1	1,990	5				1					
Swedish.....	1	13	2	5	2,717				9	12				
Serbian.....		1	37											
Slovak.....		1	7											1
Spanish.....		7												
Swiss.....	113	17	300											2
Syrian.....		5												
Turkish.....	1	1												
Totals.....	841	55,441	12,927	2,001	2,883	7	484	907	2,358	4,173	93	50	833	1,345

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10 years and over, by Racial Origin, for the Fiscal Year 1929-30

Hebrew	Ruthenian Russiak Ukrainian	Polish	Roumanian	Slovenian	Croat (Serbian)	Czech (Bohemian)	Hungarian (Magyar)	Italian	Spanish	Portuguese	Greek	Albanian	Turkish	Bulgarian	Japanese	East Indian	Armenian (Aramec)	Syrian (Arabic)
	1					1					6	18						
													2				9	4
						10												1
			1	3	572		12				12			274				
	2			4		295	6											
																40		
	14	125	7	1	24	9	70				1							
1,555	5	847	40		5	1	21		2		567			25				
	2		8	148	556	53	12	953							177			
	3	11					3											
	3	1	9		11	10	4,311				1			1				
			1		2			12	1									
						17												
23	108	4,828	2			3					1						1	
1	3		244			4				1								
5	13	46			1		11											
7	6,982	1,564	43		9	48	42											
	4																	
	1		9		239	2	36											
	5	8		11	16	2,204	43											
			3					8	10									
											2							
														1				
													2					45
1,594	7,139	7,435	368	167	1,436	2,657	4,567	973	13	1	590	18	4	304	177	40	11	51

IMMIGRATION AND COLONIZATION

TABLE 27.—Immigration, from the United States, showing Language of

Racial Origin	French	English	German	Norwegian	Swedish	Icelandic	Flemish	Dutch	Danish	Finnish	Esthonian	Lettish	Lithuanian
Albanian.....													
Arabian.....													
Armenian.....		11											
Belgian.....	5	49					29						
Bohemian.....		62	3										
British—													
English.....	15	7,660											
Irish.....		3,208											
Scotch.....	2	2,971											
Welsh.....		282											
Bulgarian.....		6											
Croatian.....		4											
Czech.....		8											
Dutch.....		559	2					23					
Esthonian.....											2		
Finnish.....	1	46								26			
French.....	1,303	1,575	2										
German.....	1	2,993	215										
Greek.....		14											
Hebrew.....	1	384	11										
Italian.....		137											
Jugo-Slav.....		20	1										
Lettish.....		3										2	
Lithuanian.....		18											2
Magyar.....		64	3										
Maltese.....		1											
Montenegrin.....		2											
Negro.....		238											
North American Indian.....		20											
Polish.....		146	2										1
Portuguese.....		9											
Roumanian.....		30	1										
Russian.....	1	95	7										
Ruthenian.....		17											
Scandinavian—													
Danish.....	1	220							52				
Icelandic.....		18				1			1				
Norwegian.....		859		82	2								
Swedish.....		543	1		84				1				
Serbian.....		14											
Slovak.....		26											
Spanish.....	2	17											
Spanish American.....													
Swiss.....	5	97	6										
Syrian.....		32											
Turkish.....		1											
Totals.....	1,337	22,459	253	83	86	1	29	23	54	26	2	2	3

Immigrants, 10 years and over, by Racial Origin, for the Fiscal Year 1929-30

Russian	Hebrew	Ruthenian Russiaks Ukrainian	Polish	Roumanian	Slovenian	Croat (Serbian)	Czech (Bohemian)	Hungarian (Magyar)	Italian	Spanish	Portuguese	Greek	Albanian	Bulgarian	Armenian (Aramatic)	Syrian (Arabic)
													1			
								4	1						3	2
						3	3				1				2	
1			2					3								
12	109		4	1				2				25				
			1		1	4	4	1	64							
			1													
								27								
										1						
	5		33	1												
		1		8						1	1					
28	4		1													
2	1	7	4													
						9										
							10	1								
										10						
										2						
																11
43	119	8	46	10	1	16	21	35	64	16	1	25	1	2	3	13

IMMIGRATION AND COLONIZATION

TABLE 28.—Immigration, via Ocean Ports, showing Conjugal Condition, by Age Groups and Sex, for the Fiscal Year 1929-30

Age Groups	Males				Females			
	Married	Single	Widowed	Divorced	Married	Single	Widowed	Divorced
Years 15-19.....	44	11,233	.....	.....	289	5,691	1	.....
" 20-24.....	1,838	16,073	6	4	3,163	8,025	25	6
" 25-29.....	6,553	9,425	69	13	5,274	4,314	62	29
" 30-39.....	9,656	3,689	139	44	6,554	2,432	234	74
" 40-49.....	3,684	615	130	12	2,478	488	473	31
50 years and over..	1,391	133	302	9	1,007	172	1,105	9

TABLE 29.—Immigration, from the United States showing Conjugal Condition, by Age Groups and Sex, for the Fiscal Year 1929-30

Age Groups	Males				Females			
	Married	Single	Widowed	Divorced	Married	Single	Widowed	Divorced
Years 15-19.....	17	941	1	1	214	623	2	1
" 20-24.....	504	1,975	3	4	1,103	434	4	5
" 25-29.....	1,268	1,361	14	16	1,303	223	17	23
" 30-39.....	2,806	1,216	71	68	1,867	201	79	39
" 40-49.....	2,065	546	142	65	1,003	87	98	21
50 years and over..	1,339	284	311	42	606	65	332	13

TABLE 30.—Rejections, at Ocean Ports, showing Nationality and Sex, for the Fiscal Year 1929-30

	18 years and over		Under 18 years	
	Male	Female	Male	Female
Arabian.....	.....	1	.....	.....
Argentinian.....	1	.....	.....	.....
Armenian.....	1	.....	.....	.....
Atlantic and Pacific Islands (Not British).....	4	.....	.....	.....
Austrian.....	5	1	.....	.....
British.....	93	37	20	10
Bulgarian.....	1	.....	.....	.....
Czecho-Slovak.....	2	2	1	.....
Danish.....	3	2	.....	.....
Dutch.....	4	.....	.....	.....
Finnish.....	8	3	1	.....
French.....	1	.....	.....	.....
German.....	7	.....	.....	.....
Greek.....	7	.....	.....	.....
Hungarian.....	1	.....	.....	.....
Italian.....	19	.....	.....	1
Japanese.....	14	.....	.....	1
Jugo-Slav.....	4	1	.....	1
Latvian.....	1	.....	.....	.....
Lithuanian.....	2	.....	.....	.....
Norwegian.....	8	1	.....	.....
Polish.....	5	1	.....	.....
Portuguese.....	2	.....	.....	.....
Roumanian.....	2	.....	.....	.....
Russian.....	3	2	1	4
Spanish.....	5	1	.....	.....
Swedish.....	10	2	.....	.....
Swiss.....	3	1	.....	.....
Syrian.....	1	.....	.....	.....
U.S.A. citizens.....	6	1	1	.....
Totals.....	223	56	25	17

TABLE 31.—Statement of Non-immigrants, via Ocean Ports, showing Sex and Class of Travel, for the Fiscal Year 1929-30

	Saloon			Cabin Class			Third Class		
	18 years and over		Under 18 years	18 years and over		Under 18 years	18 years and over		Under 18 years
	M.	F.		M.	F.		M.	F.	
Canadian Born Returning.....	1,031	1,388	99	111	2,767	451	1,108	1,659	2,300
British Born Returning.....	298	206	6	3	1,440	45	5,910	8,423	382
British National Returning.....	121	159	6	8	393	20	1,111	597	52
Alien National Returning.....	36	30	5	.....	192	7	2,135	555	38
Non-immigrant Tourist.....	671	629	58	69	1,944	144	1,707	2,615	106
“ Professional.....	3	.....	.....	.....	22	.....	19	14	.....
“ Student.....	9	7	4	2	9	2	23	3	3
“ Theatrical.....	2	.....	.....	.....	97	.....	3	9	.....
“ In transit.....	848	562	39	63	690	47	385	97	22
Totals.....	3,019	2,981	217	256	6,951	716	12,401	13,972	2,903
									2,774

These do not include passengers destined to the United States.

IMMIGRATION AND COLONIZATION

TABLE 32.—Origin, Sex, Occupation and Destination of Immigrant Arrivals,

	Sex					Trade or								
	18 years and over		Under 18 years		Totals	Farming Class			Labouring Class			Mechanics		
	Males	Females	Males	Females		Males	Females	Children	Males	Females	Children	Males	Females	Children
Albanian.....	21	2	3	.....	26	15	.....	3	4	.....	.....	.....	.....	.....
Arabian.....	.....	5	.....	2	7	.....	.....	.....	.....	2	.....	.....	.....	.....
Armenian.....	2	9	1	2	14	.....	.....	1	.....	1	.....	.....	.....	.....
Belgian.....	334	216	81	65	696	257	81	57	15	7	6	32	10	3
Bohemian.....	5	7	7	1	20	3	3	8	2	.....	.....	.....	.....	.....
British—														
English.....	13,849	9,246	5,961	3,222	32,278	7,100	1,296	4,808	2,401	524	814	2,336	841	772
Irish.....	4,687	3,242	1,350	880	10,159	2,551	324	1,128	902	114	208	527	116	92
Scotch.....	7,089	6,636	2,949	1,966	18,640	2,626	384	1,599	1,621	388	721	1,584	382	351
Welsh.....	1,402	671	587	345	3,005	980	164	557	121	27	66	155	44	51
Bulgarian.....	237	39	16	4	296	159	2	9	75	.....	3	1	1	1
Croatian.....	334	227	116	94	771	332	6	25	2	.....	2	.....	.....	.....
Czech.....	133	158	79	64	434	131	31	48	1	.....	1	.....	.....	.....
Dalmatian.....	2	1	2	2	7	1	1	4	1	.....	.....	.....	.....	.....
Dutch.....	752	449	314	240	1,755	658	232	443	16	3	7	42	12	7
East Indian.....	2	21	32	3	58	.....	1	1	.....	10	11	.....	.....	.....
Estonian.....	66	41	3	7	117	65	9	7	1	.....	.....	.....	.....	.....
Finnish.....	2,083	2,091	237	154	4,565	1,535	132	156	432	28	31	89	38	12
French.....	360	233	59	45	697	160	25	22	59	11	8	68	28	10
German.....	7,896	3,979	1,528	1,315	14,718	6,870	1,203	1,617	130	10	37	604	64	44
Greek.....	458	131	31	14	634	387	4	12	47	.....	5	4	2	2
Hebrew.....	1,214	1,452	469	409	3,544	198	35	52	190	22	115	533	274	144
Italian.....	217	510	371	179	1,277	80	13	33	91	12	88	22	10	8
Japanese.....	70	83	29	12	194	34	6	2	34	27	12	.....	4	2
Jugo-Slav.....	521	258	82	60	921	517	39	41	3	.....	1	1	.....	.....
Lettish.....	29	27	8	6	70	28	5	9	.....	.....	.....	.....	.....	.....
Lithuanian.....	403	387	88	86	964	392	47	42	6	2	.....	3	4	1
Magyar.....	2,621	1,555	740	772	5,688	2,602	258	295	7	1	8	2	1	.....
Maltese.....	15	11	10	4	40	5	1	1	4	.....	.....	3	1	.....
Moravian.....	3	8	5	7	23	3	1	7	.....	.....	.....	.....	.....	.....
Negro.....	19	163	6	7	195	3	.....	.....	8	.....	.....	5	2	1
Persian.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Polish.....	2,391	2,378	971	870	6,610	2,335	609	966	31	1	16	14	6	5
Portuguese.....	4	8	.....	1	13	2	.....	.....	.....	.....	.....	1	.....	.....
Roumanian.....	147	135	51	50	383	143	44	45	1	.....	2	.....	2	4
Russian.....	357	230	81	97	765	342	86	109	4	2	8	5	.....	.....
Ruthenian.....	4,843	3,687	1,525	1,236	11,291	4,788	849	1,487	39	1	24	1	7	3
Scandinavian—														
Danish.....	1,585	671	236	193	2,685	1,380	99	182	49	3	11	87	17	10
Icelandic.....	5	1	.....	.....	6	4	.....	.....	.....	.....	.....	.....	.....	.....
Norwegian.....	1,337	596	190	133	2,256	1,079	51	117	136	9	21	71	12	12
Swedish.....	2,049	568	200	101	2,918	1,842	72	181	141	9	8	34	3	1
Serbian.....	207	110	36	22	375	206	42	19	1	1	2	.....	.....	.....
Slovak.....	1,357	850	360	312	2,879	1,353	87	121	2	.....	.....	.....	.....	.....
Spanish.....	9	8	6	3	26	6	1	5	1	.....	.....	.....	.....	.....
Swiss.....	287	129	34	23	473	179	21	35	35	.....	6	34	4	4
Syrian.....	15	28	11	7	61	9	.....	3	2	.....	.....	1	1	2
Turkish.....	3	3	.....	.....	6	1	.....	.....	2	.....	.....	.....	.....	.....
Totals.....	59,420	41,261	18,865	13,015	132,561	41,361	6,264	14,257	6,617	1,213	2,244	6,259	1,888	1,542

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for Canada, at Ocean Ports for the Fiscal Year ended March 31, 1930

Occupation										Destination											
Trading Class			Mining Class			Female Domestic Servants	Other Classes			Nova Scotia	New Brunswick	Prince Edward Island	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon Territory	Northwest Territories	
Males	Females	Children	Males	Females	Children		Males	Females	Children												
1							1	2					12	13	1						
						2	2	3					4				3				
15	4	2	3		1	22	12	92	77	16	2		185	270	149	45	15	14			
						2		2						2	16			2			
1,130	571	295	233	52	82	3,107	649	2,855	2,412	1,297	563	7	5,251	14,460	4,426	1,705	2,448	2,110	10	1	
538	189	95	15	2	7	1,860	154	637	700	109	131	14	2,030	5,815	791	386	560	323			
725	429	202	164	30	33	3,320	369	1,703	2,009	178	479	17	3,165	10,337	1,731	716	940	1,076			
67	26	22	46	4	6	206	33	200	230	30	104	5	325	1,323	562	118	404	134	1		
					1	14	2	22	7	2			5	278	1	1	4	5			
1	1					37		184	182	13			49	306	253	9	53	88			
						46		80	94				46	98	192	33	60	5			
17	3	1				121	19	78	96	10	12	3	142	576	507	264	188	53	1		
1	1						1	9	23									58			
						22		10	3				3	6	86		12	10			
8	9	1	7	1		1,686	12	197	191	12	25		1,298	2,687	78	37	53	375			
39	25	6	7	2	1	47	27	95	57	38	6		394	122	34	66	18	17	2		
196	25	9	10	1		1,661	86	1,015	1,136	47	27	8	1,328	1,669	8,713	1,590	1,119	217			
15	2	2				67	5	56	24	1	4		52	502	13	19	6	37			
211	87	94				647	82	387	473	9	18		1,189	1,580	524	111	65	48			
4	1	5	6	1	1	59	14	414	415	17	1		210	793	24	18	58	156			
1	10	1				1	1	35	24					4		1	2	186	1		
						95		124	100				22	229	500	22	79	69			
1						16		6	5				2	9	49	1	6	3			
1	1	1	1			203		131	130	1	2		167	132	491	76	90	5			
2					1	316	10	978	1,208	49	1		469	1,312	2,650	510	651	46			
						3	1	6	13				1	27	1		1				
						3		4	5				3	13		2	5				
	1					152	3	8	12	19	13		104	58				1			
														1							
7		1				1,014	4	748	853	16	2		348	1,080	4,065	475	583	41			
1	1					4		3	1	1			3	5	1	2		1			
1						31	2	58	50		1		42	88	208	25	12	7			
2	3	1				71	4	68	60	4			36	101	492	50	56	26			
1	1	2			3	1,825	14	1,004	1,242	8	3		368	1,080	7,493	998	1,273	68			
47	6	5	2	1	1	368	20	177	220	121	207	4	455	376	745	207	491	78	1		
							1								3	2	1				
16	8		17			356	18	160	173	10	19	3	201	152	570	465	400	435	1		
9	2		2			378	21	104	111	17	9		315	571	863	206	238	699			
						21		46	37				16	100	225	16	14	4			
1						253	1	510	551	13			343	611	1,462	130	264	56			
						1	2	6	4				9	4	3	2		8			
26	5					66	13	33	12		3		192	102	118	24	19	15			
1	3					8	2	16	13	5			20	16	5	9	2	4			
						1		2					1	4				1			
3,085	1,414	745	513	94	137	18,114	1,585	12,274	12,955	2,043	1,629	64	18,808	46,933	38,045	8,347	10,193	6,482	16	1	

TABLE 33.—Origin, Sex, Occupation and Destination of Immigrant Arrivals,

	Sex					Trade or									
	18 years and over		Under 18 years		Totals	Farming Class			Labouring Class			Mechanics			
	Males	Females	Males	Females		Males	Females	Children	Males	Females	Children	Males	Females	Children	
Albanian.....		1			1										
Arabian.....	2				2										
Armenian.....	10	3	1	2	16	3			2			2			
Belgian.....	44	34	9	5	92	17	10	4	7	4		8	3		
Bohemian.....	42	20	11	8	81	25	4	7	1		1	12	3	9	
British—															
English.....	4,574	2,534	1,128	1,143	9,379	1,352	308	368	586	99	105	1,290	324	222	
Irish.....	1,985	1,002	392	383	3,762	479	127	145	405	46	26	572	121	103	
Scotch.....	1,803	944	475	416	3,638	396	118	155	252	42	50	641	137	95	
Welsh.....	195	67	39	31	332	56	9	26	26	2	3	54	6	4	
Bulgarian.....	6	2	1	1	10	3	2	2							
Croatian.....	4	2	3	2	11	1						2	1	4	
Czech.....	5	6	1	2	14	2	1	2				2			
Dutch.....	357	182	87	77	703	124	31	53	42	5	7	96	16	15	
Esthonian.....	2				2										
Finnish.....	44	25	10	3	82	11	3	1	3	1	1	13	1		
French.....	1,408	1,086	983	942	4,419	370	119	221	326	67	94	388	105	67	
German.....	1,898	1,037	448	425	3,808	639	187	262	255	41	27	471	101	70	
Greek.....	29	6	6	7	48				20	2	3				
Hebrew.....	319	169	72	60	620	5	3	6	40	5	4	73	17	11	
Italian.....	138	48	27	23	236	10		1	41	7	2	43	4	6	
Jugo-Slav.....	17	11	4	3	35	3			3			4	1		
Lettish.....	4	2	2		8	4	1	2							
Lithuanian.....	16	5	1		22	4	1		3			5			
Magyar.....	51	35	6	7	99	15	5	3	9		1	13	1		
Maltese.....	1				1				1						
Montenegrin.....	2				2				2						
Negro.....	151	78	11	11	251	6			108	7	1	20	2		
North American Indian..	7	10	1	4	22		1		2		1	4	2		
Polish.....	111	59	31	26	227	41	11	16	17	6	3	24	8	3	
Portuguese.....	5	6			11	3				1		2			
Roumanian.....	18	12	13	19	62	7	6	17	5			2	1		
Russian.....	75	48	29	21	173	48	18	26	6	1		7			
Ruthenian.....	23	8	5	5	41	16	3	5	3			1			
Scandinavian—															
Danish.....	171	78	40	30	319	96	27	40	7	2	1	25	4	2	
Icelandic.....	8	10	6	4	28	7	4	5					1		
Norwegian.....	564	269	174	142	1,149	394	95	183	35	9	6	78	13	10	
Swedish.....	407	171	83	75	736	194	48	86	38	5	5	96	20	15	
Serbian.....	21	2	4	2	29	3			5			5			
Slovak.....	21	14	8	3	46	13	3	7	2	3	3	3			
Spanish.....	18	10	5	4	37	2			3	1		6	3		
Spanish American.....		2	1	1	4										
Swiss.....	66	33	10	8	117	18	5	6	11	1		15	5	1	
Syrian.....	19	16	8	8	51	1	1	1	4		2	2	1		
Turkish.....	1				1										
Totals.....	14,642	8,047	4,135	3,903	30,727	4,368	1,151	1,650	2,270	357	346	3,979	901	637	

for Canada, from the United States for the Fiscal Year ended March 31, 1930

Occupation										Destination											
Trading Class			Mining Class			Other Classes				Nova Scotia	New Brunswick	Prince Edward Island	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon Territory	Northwest Territories	Not given
Males	Females	Children	Males	Females	Children	Males	Females	Children													
2							1							1							
6	1	2	1			3	3	3						14			2	2			
1			1			5	13	8	1	1			9	47	8	22	1	3			
						2	13	2					3	26	5	16	21	10			
804	322	142	46	6	5	130	496	1,345	1,429	147	398	15	1,033	4,907	278	416	1,091	1,085	9		
314	129	46	28	3		78	187	498	455	38	82	13	397	1,828	108	274	673	325	24		
309	122	80	22	3	3	86	183	436	508	52	54	16	298	1,699	131	268	653	456	10	1	
35	13	8	7			5	17	32	29	3			18	147	11	14	89	50			
			1				2							1	2	7					
1			1					1						7	2	1		1			
	2					1	1	2	1					9		2	2	1			
52	17	14	2	1		8	41	104	75	3	11		53	260	45	79	155	92	5		
						2											2				
5	1	1	3			3	9	16	10		1		5	48			9	7	1		
191	92	52	6	2	1	106	127	595	1,490	29	274	18	2,638	879	53	153	268	105	2		
302	143	79	26	3		88	205	474	435	17	12		219	1,633	177	570	873	297	5	4	1
6	1	3					3	3	7				6	40				2			
151	47	32				2	50	95	79	6	1		191	344	37	11	13	17			
23	7	8	1			1	20	29	33	4			35	167	3	3	12	12			
3	1					3	4	6	7	1				29			4	1			
							1										8				
3	1					1	3	1					3	12	1	3		3			
8	2					3	6	24	9				7	58	3	11	11	9			
														1							
8	3					41	9	25	21				39	186	14		5	5	2		
			1				7	4					4	12			5	1			
14	8	4	2			5	13	21	31		2		29	103	18	36	29	10			
	1						4				2		2	2	1			3			
3	1	1					1	4	14				6	13	9	21	13				
6	7	5				4	8	18	19				16	23	11	59	41	22	1		
	1						3	5	4				1	11	18	4	7				
23	5	6	3			6	17	34	21		4		6	75	12	54	138	26	4		
1		2				1		4	3						10	6	10	2			
28	13	6	2	1	2	30	27	108	109		2		20	121	68	446	387	103	2		
41	13	6	3			20	35	65	46	1	4		40	199	55	150	210	75		2	
6	2	6					2							17	1			3			
2						1	1	7	1					4	16	4	2	20			
2	2	5					5	4	4				10	15		2	2	8			
							1	2													
16	9	2				6	6	7	9				9	57	2	7	18	24			
7	3	9				2	5	9	4	1	1		7	29		8		5			
							1							1							
2,373	968	520	155	20	11	634	1,497	4,016	4,874	303	849	62	5,109	13,041	1,087	2,656	4,777	2,770	65	7	1

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TABLE 34.—Origin, Sex, Occupation and Destination of total Immigrant

	Sex				Totals	Trade or								
	18 years and over		Under 18 years			Farming Class			Labouring Class			Mechanics		
	Males	Females	Males	Females		Males	Females	Children	Males	Females	Children	Males	Females	Children
Albanian.....	21	3	3	.....	27	15	.....	3	4	.....	.....	.....	.....	.....
Arabian.....	2	5	.....	2	9	.....	.....	.....	.....	.....	2	.....	.....	.....
Armenian.....	12	12	2	4	30	3	.....	1	2	1	.....	2	.....	3
Belgian.....	378	250	90	70	788	274	91	61	22	11	6	40	13	3
Bohemian.....	47	27	18	9	101	28	7	15	3	.....	1	12	3	9
British—														
English.....	18,423	11,780	7,089	4,365	41,657	8,452	1,604	5,176	2,987	623	919	3,626	1,165	994
Irish.....	6,672	4,244	1,742	1,263	13,921	3,030	451	1,273	1,307	160	234	1,099	237	195
Scotch.....	8,892	7,580	3,424	2,382	22,278	3,022	502	1,754	1,873	430	771	2,225	519	446
Welsh.....	1,597	738	626	376	3,337	1,036	173	583	147	29	69	209	50	55
Bulgarian.....	243	41	17	5	306	162	4	11	75	.....	3	1	1	1
Croatian.....	338	229	119	96	782	333	6	25	2	.....	2	2	1	4
Czech.....	138	164	80	66	448	133	32	50	1	.....	1	2	.....	.....
Dalmatian.....	2	1	2	2	7	1	1	4	1	.....	.....	.....	.....	.....
Dutch.....	1,109	631	401	317	2,458	782	263	496	58	8	14	138	28	22
East Indian.....	2	21	32	3	58	.....	1	1	.....	10	11	.....	.....	.....
Estonian.....	68	41	3	7	119	65	9	7	1	.....	.....	.....	.....	.....
Finnish.....	2,127	2,116	247	157	4,647	1,546	135	157	435	29	32	102	39	12
French.....	1,768	1,319	1,042	987	5,116	530	144	243	385	78	102	456	133	77
German.....	9,794	5,016	1,976	1,740	18,526	7,509	1,390	1,879	385	51	64	1,075	165	114
Greek.....	487	137	37	21	682	387	4	12	67	2	8	4	2	2
Hebrew.....	1,533	1,621	541	469	4,164	203	38	58	230	27	119	606	291	155
Italian.....	355	558	398	202	1,513	90	13	34	132	19	90	65	14	14
Japanese.....	70	83	29	12	194	34	6	2	34	27	12	.....	4	2
Jugo Slav.....	538	269	86	63	956	520	39	41	6	.....	1	5	1	.....
Lettish.....	33	29	10	6	78	32	6	11	.....	.....	.....	.....	.....	.....
Lithuanian.....	419	392	89	86	986	396	48	42	9	2	.....	8	4	1
Magyar.....	2,672	1,590	746	779	5,787	2,617	263	298	16	1	9	15	2	.....
Maltese.....	16	11	10	4	41	5	1	1	5	.....	.....	3	1	.....
Montenegrin.....	2	.....	.....	.....	2	.....	.....	.....	2	.....	.....	.....	.....	.....
Moravian.....	3	8	5	7	23	3	1	7	.....	.....	.....	.....	.....	.....
Negro.....	170	241	17	18	446	9	.....	.....	116	7	1	25	4	1
North American Indian.....	7	10	1	4	22	.....	1	.....	2	.....	1	4	2	.....
Persian.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Polish.....	2,502	2,437	1,002	896	6,837	2,376	620	982	48	7	19	38	14	8
Portuguese.....	9	14	.....	1	24	5	.....	.....	.....	1	.....	3	.....	.....
Roumanian.....	165	147	64	69	445	150	50	62	6	.....	2	2	3	4
Russian.....	432	278	110	118	938	390	104	135	10	3	8	12	.....	.....
Ruthenian.....	4,866	3,695	1,530	1,241	11,332	4,804	852	1,492	42	1	24	2	7	3
Scandinavian—														
Danish.....	1,756	749	276	223	3,004	1,476	126	222	56	5	12	112	21	12
Icelandic.....	13	11	6	4	34	11	4	5	.....	.....	.....	.....	2	.....
Norwegian.....	1,901	865	364	275	3,405	1,473	146	300	171	18	27	149	25	22
Swedish.....	2,456	739	283	176	3,654	2,036	120	267	179	14	13	130	23	16
Serbian.....	228	112	40	24	404	209	42	19	6	1	2	5	.....	.....
Slovak.....	1,378	864	368	315	2,925	1,366	90	128	4	3	3	3	.....	.....
Spanish.....	27	18	11	7	63	8	1	5	4	1	.....	6	3	.....
Spanish American.....	.....	2	1	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swiss.....	353	162	44	31	590	197	26	41	46	1	6	49	9	5
Syrian.....	34	44	19	15	112	10	1	4	6	.....	2	3	2	2
Turkish.....	4	3	.....	.....	7	1	.....	.....	2	.....	.....	.....	.....	.....
Totals.....	74,062	49,308	23,000	16,918	163,288	45,729	7,415	15,907	8,887	1,570	2,590	10,238	2,789	2,179

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Arrivals for Canada, for the Fiscal Year ended March 31, 1930

Occupation										Destination											
Trading Class			Mining Class			Other Classes				Nova Scotia	New Brunswick	Prince Edward Island	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon Territory	Northwest Territories	Not given
Males	Females	Children	Males	Females	Children	Females Domestic Servants	Males	Females	Children												
1								1	3				12	14	1						
2						2			3				4								
						2	5	9	5				3	25			3	2			
21	5	4	4		1	25	17	105	85	17	3		194	317	157	67	16	17			
102	39		1			2	2	15	2			3	28	21	10		21	12			
1,934	893	437	279	58	87	3,237	1,145	4,200	3,841	1,444	961	22	6,284	19,367	4,704	2,121	3,539	3,195	19	1	
852	318	141	43	5	7	1,938	341	1,135	1,155	147	213	27	2,427	7,643	899	660	1,233	648	24		
1,034	551	282	186	33	36	3,406	552	2,139	2,517	230	533	33	3,463	12,036	1,862	984	1,593	1,532	11		
		30	53	4	6	211	50	232	259	33	104	5	343	1,470	573	132	493	184			
			1			14	4	22	7	2			5	279	3	8	4	5			
1				1	1	37		184	183	13			49	313	255	10	53	89			
1	3					47	1	82	95				46	107	192	35	62	6			
69	20	15	2	1		129	60	182	171	13	23	3	195	836	552	343	343	145	5		
1	1						1	9	23									58			
						22	2	10	3				3	6	86		14	10			
13	10	2	10	1		1,689	21	213	201	12	26		1,303	2,735	78	48	62	382	1		
230	117	58	13	4	2	153	154	690	1,547	67	280	18	3,032	1,001	87	219	286	122	4		
498	168	88	36	4		1,749	291	1,489	1,571	64	39	8	1,547	3,302	8,890	2,160	1,992	514	5	4	1
21	3	5				67	8	59	31	1	4		58	542	13	19	6	39			
362	134	126				649	132	482	552	15	19		1,380	1,924	561	122	78	65			
27	8	13	7	1	1	60	34	443	448	21	1		245	960	27	21	70	168			
1	10	1				1	1	35	24					4		1	2	186	1		
3	1					98	4	130	107	1				22	258	500	22	83	70		
1						16		7	5				2	9	49	1	14	3			
4	1	1	1			203	1	134	131	1	2		170	144	492	79	90	8			
8	3			1		319	16	1,002	1,217	49	1		476	1,370	2,653	521	662	55			
2						3	1	6	13				1	38	1		1				
						3		4	5				1				1				
8	4					193	12	33	33	19	13		3	13		2	5				
			1					7	4				143	244	14		5	6	2		
													4	12			5	1			
21	8	5	2			1,019	17	769	884	16	4		377	1,183	4,083	511	612	51			
1	2					4		7	1	1	2		5	7	2	2	1	4			
4	1	1				31	3	62	64		1		48	101	217	46	25	7			
8	10	6				75	12	86	79	4			52	124	503	109	97	48	1		
1	1	3			3	1,825	17	1,009	1,246	8	3		369	1,091	7,511	1,002	1,280	68			
70	11	11	5	1	1	374	37	211	241	121	211	4	461	451	757	261	629	104	5		
1		2				1	1	4	3						13	8	11	2			
44	21	6	19	1	2	386	45	268	282	10	21	3	221	273	638	911	787	538	3		
50	15	6	5			398	56	169	157	18	13		355	770	918	356	448	774		2	
6	2	6				21	2	46	37				16	117	226	16	17	12			
3						254	2	517	552	13			347	627	1,466	132	284	56			
2	2	5				1	7	10	8				19	19	3	4	2	16			
						1		1	2					4							
42	14	2				72	19	40	21		3		201	159	120	31	37	39			
8	6	9				10	7	25	17	6	1		27	45	5	17	2	9			
						1	1	2					1	5				1			
458	2,382	1,265	668	114	148	18,748	3,082	16,290	17,829	2,346	2,478	126	23,917	59,974	39,132	11,003	14,970	9,252	81	8	1

IMMIGRATION AND COLONIZATION

TABLE 35.—Monthly Arrivals of Immigrants, by Occupation and Destination, at the Port of St. John, for the Fiscal Year 1929-30

Occupation and Destination	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Farming class..	5,132	3			2	3		54	144	97	362	3,367	9,164
Labouring class	202		1	3	4	2		16	73	65	88	169	623
Mechanics.....	327	1		1	2		5	13	67	65	67	195	743
Trading and clerical classes	168	1	4	3	5		1	15	58	69	50	101	475
Mining class....	40							4	7	10	17	11	89
Female domestic servants..	528	8	16	19	21	9	14	55	160	133	239	616	1,818
Other classes...	435	9	9	18	1	2	6	76	360	221	206	376	1,719
Totals.....	6,832	22	30	44	35	16	26	233	869	660	1,029	4,835	14,631
Nova Scotia....	31	9	2	7	1	2	5	2	12	5	1	32	109
New Brunswick	267		6	2	4	6	4	12	16	15	14	37	383
Prince Edward Island.....	5								1		5		11
Quebec.....	423	10	13	20	18	3	12	37	117	141	88	391	1,273
Ontario.....	1,536	2	8	13	12	4	5	91	408	309	319	1,104	3,811
Manitoba.....	3,283	1		2				20	48	25	250	2,272	5,901
Saskatchewan..	426							23	65	56	137	445	1,152
Alberta.....	702		1			1		27	116	66	141	363	1,417
British Columbia ...	159							21	86	43	74	191	574
Totals....	6,832	22	30	44	35	16	26	233	869	660	1,029	4,835	14,631

TABLE 36.—Monthly Arrivals of Immigrants, by Occupation and Destination at the Port of Halifax, for the Fiscal Year 1929-30

Occupation and Destination	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Farming class..	9,076	3,033	2,471	1,724	1,096	476	289	221	436	240	433	4,606	24,101
Labouring class	413	104	109	76	114	82	50	118	163	78	202	344	1,853
Mechanics.....	473	114	131	104	96	81	98	110	192	100	160	381	2,040
Trading and clerical classes	148	12	18	19	31	39	31	68	116	52	78	192	804
Mining class....	17	13	7	5	2	3		1	7	1	6	27	89
Female domestic servants..	921	578	495	374	381	438	268	326	494	255	314	880	5,724
Other classes...	995	598	660	474	701	497	580	733	1,073	448	431	783	7,973
Totals.....	12,043	4,452	3,891	2,776	2,421	1,616	1,316	1,577	2,481	1,174	1,624	7,213	42,584
Nova Scotia....	204	102	111	63	57	49	56	43	48	30	103	111	977
New Brunswick	194	57	23	29	34	8	8	4	10	6	3	66	442
Prince Edward Island.....	2	11	2	1	3	4			1			1	25
Quebec.....	1,047	477	329	226	328	295	239	341	531	273	300	881	5,267
Ontario.....	2,530	755	633	443	670	586	478	731	1,172	454	709	1,649	10,810
Manitoba.....	6,014	2,226	1,943	1,418	713	303	190	118	212	138	185	3,459	16,919
Saskatchewan..	799	260	256	241	260	101	99	126	187	93	102	466	2,990
Alberta.....	896	292	331	267	228	152	164	146	218	112	136	395	3,337
British Columbia ...													
Yukon Territory....	357	272	263	88	128	118	82	68	102	68	84	183	1,813
Totals....	12,043	4,452	3,891	2,776	2,421	1,616	1,316	1,577	2,481	1,174	1,624	7,213	42,584

TABLE 37.—Monthly Arrivals of Immigrants, by Occupation and Destination, at the Port of Quebec, for the Fiscal Year 1929-30

Occupation and Destination	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Farming class.	3,104	9,657	6,255	4,198	2,767	1,074	587	458	3				28,103
Labouring class	556	1,472	1,300	929	886	669	499	263		3			6,578
Mechanics.....	659	1,527	1,155	831	789	662	456	261	2	1		1	6,345
Trading and clerical classes.	296	645	615	462	568	423	341	256	1		4	1	3,612
Mining class....	69	109	110	78	61	44	41	18					530
Female domestic servants..	678	1,927	1,768	1,389	1,280	1,294	1,030	731		1			10,098
Other classes...	788	2,424	2,445	1,929	2,395	2,408	1,775	1,248	6	2		2	15,422
Totals.....	6,150	17,761	13,648	9,816	8,746	6,574	4,729	3,235	12	7	4	6	70,688
Nova Scotia....	18	39	59	45	16	26	24	27					254
New Brunswick	51	291	222	68	32	32	12	16					724
Prince Edward Island.....		2	20		1		4						
Quebec.....	923	2,331	2,004	1,405	1,651	1,368	1,003	642	3	3	4	4	28
Ontario.....	2,671	6,500	5,848	3,968	4,187	3,485	2,555	1,669	2	2		2	11,341
Manitoba.....	1,667	5,580	3,079	2,653	1,258	450	241	213	4	2			30,789
Saskatchewan..	287	974	790	586	590	403	281	192					15,147
Alberta.....	461	1,387	1,072	711	612	437	329	280	3				4,103
British Columbia....	172	657	543	379	399	372	280	196					5,292
Yukon Territory.....			11										2,998
Northwest Territories.....				1									11
Totals.....	6,150	17,761	13,648	9,816	8,746	6,574	4,729	3,235	12	7	4	6	70,688

TABLE 38.—Monthly Arrivals of Immigrants, by Racial Origin, at the Port of St. John, for the Fiscal Year 1929-30

Racial Origin	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Albanian.....													
Arabian.....									1			2	3
Armenian.....									1		3		4
Belgian.....	55							1			1	1	3
British—									7	3		34	39
English.....	1,757	10	13	11	9	3	7	55	216	175	183	1,002	3,441
Irish.....	598			1	1			21	57	49	67	200	994
Scotch.....	791		2	7	1			35	141	126	134	356	1,693
Welsh.....	291	2						1	10	8	5	24	341
Bulgarian.....												2	2
Croatian.....									7	8	4	2	21
Czech.....	6								2			14	22
Dutch.....	91								21	8	241	300	661
Esthonian.....	4											7	11
Finnish.....	31							9	39	20	35	41	175
French.....	23		1	1					3	5		27	60
German.....	608							8	48	45	113	723	1,545
Greek.....	20								19	5	4	3	51
Hebrew.....	19							7	23	25	25	38	137
Italian.....	19							1	13	13	5	27	78
Jugo-Slav.....	172								6	2	6	85	271
Lettish.....	1											2	3
Lithuanian.....	81								4	10	2	73	170
Magyar.....	635								54	50	29	465	1,233
Maltese.....										3			3
Negro.....	9	10	13	22	24	13	17	10	6	9	3	4	140
Polish.....	304							25	57	28	32	326	832
Portuguese.....			1	1			2						4
Roumanian.....	30								1	1	1	55	88

IMMIGRATION AND COLONIZATION

TABLE 38.—Monthly Arrivals of Immigrants, by Racial Origin, at the Port of St. John, for the Fiscal Year 1929-30—*Concluded*

Racial Origin	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Russian.....	63							7	6	8	10	99	193
Ruthenian.....	597							42	90	43	85	412	1,269
Scandinavian—													
Danish.....	128							7	4	3	12	64	218
Norwegian....	28			1				1	11	3	4	44	92
Swedish.....	68							2	2	2	4	21	99
Serbian.....	18								2	2	1	13	34
Slovak.....	310							1	9	8	12	339	679
Swiss.....	15							1	3		1	27	47
Syrian.....									5		7	3	15
Totals.....	6,832	22	30	44	35	16	26	233	869	660	1,029	4,835	14,631

TABLE 39.—Monthly Arrivals of Immigrants, by Racial Origin, at the Port of Quebec, for the Fiscal Year 1929-30

Racial Origin	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Albanian.....		1	4	5	1	2	2	2					17
Armenian.....			1		3			1					5
Belgian.....	47	61	44	25	25	23	29	18					272
Bohemian.....		1			10			1					12
British—													
English.....	2,061	6,345	4,205	2,815	2,842	1,887	1,355	836	5	2	4	2	22,359
Irish.....	670	1,965	1,590	811	925	707	529	356					7,553
Scotch.....	1,551	3,174	3,094	1,846	1,822	1,536	1,137	758	1	1		1	14,921
Welsh.....	129	745	483	326	244	182	75	76	1				2,261
Bulgarian.....	13	20	18	15	19	13	14	7					119
Croatian.....	30	61	33	36	35	27	32	32					286
Czech.....	2	67	69	12	20	27	29	9					235
Dutch.....	53	56	70	13	21	46	42	9					310
Estonian.....	2	33	11	11	6	1	3	3				1	71
Finnish.....	34	275	228	207	238	191	142	84					1,399
French.....	24	46	82	61	67	70	41	26	1				418
German.....	219	1,008	819	921	528	488	252	213	3	1			4,432
Greek.....	16	50	40	35	50	39	35	23					288
Hebrew.....	19	76	79	175	110	111	135	69					774
Italian.....	6	65	37	21	24	57	29	18		1			258
Jugo-Slav.....	64	177	48	64	46	46	32	30					507
Lettish.....	7	4	5	10	8	3	1	2					40
Lithuanian.....	15	81	67	85	58	55	20	20					401
Magyar.....	332	715	489	302	356	259	152	173					2,778
Maltese.....		1	6	3	2	1	5	2					20
Moravian.....	1		2										3
Negro.....			1										2
Persian.....			1			1							1
Polish.....	132	677	598	624	320	172	161	122					2,806
Portuguese.....			1	4	1								6
Roumanian.....	1	55	40	22	43	14	8	14					197
Russian.....	48	85	76	113	67	35	14	8				1	447
Ruthenian.....	321	1,240	946	727	537	335	272	146					4,524
Scandinavian—													
Danish.....	125	214	81	116	62	35	36	21				1	691
Icelandic.....				1		1							2
Norwegian....	52	105	69	61	52	47	19	22					427
Swedish.....	22	67	66	32	30	22	15	12	1				267
Serbian.....	15	33	28	5	10	9	11	12					123
Slovak.....	92	204	181	192	134	112	67	92					1,074
Spanish.....				4	1	2							7
Swiss.....	44	53	31	116	20	18	28	18			2		330
Syrian.....	2	1	5		8		7						23
Turkish.....	1		1										2
Totals.....	6,150	17,761	13,648	9,816	8,746	6,574	4,729	3,235	12	7	4	6	70,688

TABLE 40.—Monthly Arrivals of Immigrants, by Racial Origin, at the Port of Halifax, for the Fiscal Year 1929-30

Racial Origin	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Albanian.....	1												
Arabian.....										1	3		5
Armenian.....						2				1			3
Belgian.....	119	32	58	7	14	4	21	7	1		1		2
Bohemian.....			8						5	5	5	44	321
British—													8
English.....	2,058	248	130	45	45	33	36	152	204	125	346		
Irish.....	762	67	40	15	9	5	8	48	90	37	84	924	4,346
Scotch.....	807	36	2	9	2	2	2	93	223	63	136	302	1,467
Welsh.....	260	23		7	7	1	7	4	11	3	7	411	1,786
Bulgarian.....	15	12	7	16	6	18	5	10	16	14	11	30	372
Croatian.....	135	42	20	27	25	15	19	14	32	14	16	100	160
Czech.....	44	13	33	9	8		11	32	7	2	3	13	459
Dutch.....	277	113	21	27	29	3	33		14		45	175	737
Estonian.....	13	2		1	2			1	2		1	10	32
Finnish.....	382	335	318	189	362	343	158	138	249	84	78	190	2,826
French.....	46	14	6	1	8	12	5	2	11	7	6	32	150
German.....	2,280	1,045	845	1,148	495	68	262	212	233	155	112	1,738	8,593
Greek.....	36	7	4	7	6	15	3	15	35	17	47	60	252
Hebrew.....	180	85	197	119	169	272	188	192	380	193	220	324	2,519
Italian.....	28	2	2				7	3	23	6	12	29	112
Jugo-Slav.....	51	7	6	8	3	1	6	3	5	4	2	39	135
Lettish.....	2	5	4	1	4		3	3	2		1	2	27
Lithuanian.....	99	18	27	12	31	39	22	29	38	9	17	50	391
Magyar.....	496	128	65	45	70	29	53	123	176	81	75	329	1,670
Maltese.....	1		1		10		1						13
Moravian.....			7		7		3					3	20
Negro.....									1				1
Polish.....	496	327	379	217	298	181	113	103	159	80	112	454	2,919
Romanian.....	31	5	4	6		2		10	11	5	3	6	83
Russian.....	12	1	9	13	14	11		3	9	8	7	19	106
Ruthenian.....	1,210	646	887	378	330	244	108	188	295	133	140	919	5,478
Scandinavian—													
Danish.....	726	256	130	71	113	58	54	41	15	24	44	228	1,760
Icelandic.....	3					1							4
Norwegian.....	335	333	256	107	133	128	76	43	15	26	21	220	1,693
Swedish.....	720	506	370	198	157	117	66	61	77	41	32	192	2,537
Serbian.....	71	19	2	23	15	1	3	17	9	2	4	38	214
Slovak.....	313	117	42	63	45	11	41	29	129	28	27	273	1,118
Spanish.....	2	1											3
Swiss.....	32	7	1	3	2		2		3	4	6	15	75
Syrian.....				3	1			1		2		1	8
Turkish.....				1	1				1			1	4
Totals.....	12,043	4,452	3,891	2,776	2,421	1,616	1,316	1,577	2,481	1,174	1,624	7,213	42,584

IMMIGRATION AND COLONIZATION

TABLE 41.—Statement of Immigration, by Occupation and Destination, at the Port of St. John, for the Fiscal Year 1929-30

Racial Origin	Occupation							Destination									
	Totals	Farming Class	Labouring Class	Mechanics	Trading and Clerical Classes	Mining Class	Female Domestic Servants	Other Classes	Nova Scotia	New Brunswick	Prince Edward Island	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Albanian.....	3	1	1					1				3				3	
Arabian.....	4		2				1	1				1	3				
Armenian.....	3	1					1	1								6	2
Belgian.....	99	70	4	3	3		1	18	2			14	32	36	7		
British—																	
English.....	3,441	1,868	243	347	204	47	291	441	45	155	1	475	1,413	448	207	445	252
Irish.....	994	505	89	79	72	4	156	89	9	34	5	119	558	61	49	125	34
Irish—																	
English.....	1,593	656	136	172	116	23	232	258	9	117		190	703	273	99	101	101
Scotch.....	341	226	17	31	16	7	25	19		52		23	127	41	25	61	12
Welsh.....	2	2										1	8		1	2	9
Bulgarian.....	21	6	1	1	3		2	12				1	8		1	4	
Bulgarian—																	
English.....	22	14					1	7				4	99	14	164	81	3
Croatian.....	661	553	5	1	3		81	18			3						
Czech.....							3										
Dutch.....	11	8															
Esthonian.....	11																
Finnish.....	175	71	30	14	5	2	38	22	2			41	92		1	8	33
French.....	60	34	6	8	5	2	2	3	2	1		23	7	3	22	2	
German.....	1,545	1,108	23	28	24	4	245	113	6			94	145	950	196	118	36
Greek.....	51	38	2		2		5	4		1		1	42				7
Hebrew.....	137	16	5	29	17		29	41	2	5		17	89	1	11	8	4
Italian.....	78	3	27	7	1	2	3	30				12	50	1		4	11
Italian—																	
English.....	271	204					24	43				9	46	172	2	28	14
Jugo-Slav.....	3	2					1									1	
Lettish.....	170	129	1				22	18					2	130	13	15	1
Lithuanian.....																	
English.....	1,233	1,007	1	1			67	157	3			43	79	925	88	93	2
Magyar.....	3																
Maltese.....	140	2	7	4			110	17	19	13		73	34			33	3
Negro.....	832	592	2		2		152	84				20	88	651	37		
Polish.....	4											3					
Portuguese.....	88	67	1	1	1		2		1			3				3	
Romanian.....	193	158					9	11				5	14	129	28	10	7
Russian.....	1,269	881	3	4			12	22				14	80	939	93	128	9
Ruthenian.....							200	181	1								

Russian.....	106	48	4	2	3	13	39	1	176	4	8	36	39	7	13	2
Ruthenian.....	5,478	3,548	37	6	3	759	1,122	7	.....	.....	230	547	3,644	412	620	18
Scandinavian—																
Danish.....	1,760	1,114	35	64	31	.....	263	95	176	.....	.....	215	535	144	292	50
Icelandic.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norwegian.....	1,693	938	135	63	9	.....	274	10	16	3	90	96	435	2	1	.....
Swedish.....	2,537	1,857	108	24	1	344	202	9	9	.....	235	527	733	378	312	352
Serbian.....	214	166	.....	.....	.....	.....	46	.....	.....	.....	13	59	131	188	213	623
Slovak.....	1,118	586	.....	.....	.....	.....	87	10	.....	.....	176	262	538	42	8	1
Spanish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	87	3
Swiss.....	75	46	6	6	2	.....	1	.....	.....	.....	36	5	2	.....	10	1
Syrian.....	8	1	.....	.....	.....	.....	10	5	.....	.....	3	.....	.....	6	.....	.....
Turkish.....	4	.....	2	.....	.....	.....	5	2	.....	.....	.....	4	.....	.....	.....	.....
Totals.....	42,584	24,101	1,853	2,040	804	5,724	7,973	977	442	25	5,267	10,810	16,919	2,990	3,337	1,813
						89										4

TABLE 43.—Statement of Immigration, showing Racial Origin, by Occupation and Destination, at the Port of Quebec, for the Fiscal Year 1929-30

Racial Origin	Occupation						Destination												
	Occupation						Destination												
	Totals	Farming Class	Labouring Class	Mechanics	Trading and Clerical Classes	Mining Class	Female Domestic Servants	Other Classes	Nova Scotia	New Brunswick	Prince Edward Island	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon Territory	Northwest Territories
Albanian.....	17	12	3	.....	1	.....	.....	1	.....	.....	.....	8	9	.....	.....	.....	.....	.....	.....
Armenian.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	2	.....	.....	.....	.....	.....	.....
Belgian.....	272	120	15	29	14	2	12	80	2	2	.....	109	82	44	19	6	8	.....	.....
Bohemian.....	12	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	11	.....	.....	.....	.....	.....
British—																			
English.....	22,359	8,081	2,472	2,880	1,422	262	2,259	4,383	82	269	3	3,830	11,154	2,904	1,193	1,637	1,256	10	1
Irish.....	7,553	2,677	938	560	645	16	1,488	1,229	15	63	8	1,586	4,305	534	266	386	190	.....	.....
Scotch.....	14,921	3,309	2,214	1,898	1,103	183	2,795	3,419	64	316	12	2,632	8,655	1,224	520	748	749	1	.....
Welsh.....	2,261	1,224	150	185	86	45	162	409	5	21	.....	278	1,079	394	85	294	105	.....	.....
Bulgarian.....	119	59	32	3	.....	.....	9	16	.....	.....	.....	2	107	1	.....	4	5	.....	.....
Croatian.....	286	74	.....	.....	.....	1	14	197	3	.....	.....	25	186	28	5	22	17	.....	.....
Czech.....	235	115	1	.....	.....	.....	22	97	.....	.....	.....	20	55	105	19	31	5	.....	.....
Dutch.....	310	177	13	33	11	.....	12	64	.....	5	.....	36	143	42	40	31	13	.....	.....
Estonian.....	71	46	1	.....	.....	.....	16	8	.....	.....	.....	2	4	49	.....	.....	.....	.....	.....
Finnish.....	1,399	560	246	65	6	3	425	94	.....	.....	.....	468	718	22	14	21	156	.....	.....
French.....	418	108	44	70	48	24	24	120	4	.....	.....	271	85	19	15	13	11	.....	.....
German.....	4,452	2,567	65	245	95	1	607	872	15	7	4	493	675	2,212	614	381	51	.....	.....
Greek.....	288	175	28	6	5	.....	34	40	1	2	.....	21	292	9	10	5	18	.....	.....
Hebrew.....	774	49	72	224	94	.....	125	210	2	5	.....	311	354	56	20	14	12	.....	.....
Italian.....	258	56	68	15	1	2	24	92	3	1	.....	44	139	13	13	28	17	.....	.....
.....	.....	.....	.....	.....	.....	.....	62	150	.....	.....	.....	12	148	239	18	47	43	.....	.....
.....	507	291	4	.....	.....	.....	8	5	.....	.....	.....	1	6	27	1	5	.....	.....	.....
Jugo-Slav.....	40	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	59	40	221	42	33	4	.....	.....
Lettish.....	401	191	5	4	2	.....	107	92	1	1	.....	240	783	1,033	264	397	41	.....	.....
Lithuanian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Magyar.....	2,778	1,339	8	2	1	.....	165	1,263	19	1	.....	1	18	.....	2	1	.....	.....	.....
Maltese.....	20	6	3	2	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moravian.....	3	1	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
Persian.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Polish.....	2,806	1,701	18	11	3	.....	448	625	6	2	.....	113	412	1,757	239	250	27	.....	.....
Portuguese.....	6	1	.....	.....	.....	.....	2	3	.....	.....	.....	.....	3	1	2	.....	.....	.....	.....
Roumanian.....	197	126	2	1	.....	.....	10	58	.....	1	.....	17	50	108	15	6	.....	.....	.....

Russian.....	447	321	4	3	6	45	68	3	3	22	50	321	12	27	12	.....
Ruthenian.....	4,524	2,689	24	1	1	863	946	.....	3	124	448	2,910	486	512	41	.....
Scandinavian—																
Danish.....	691	365	24	43	21	3	102	23	24	180	136	147	36	124	21	.....
Icelandic.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Norwegian.....	427	236	46	22	8	7	53	55	1	69	48	117	52	70	70	.....
Swedish.....	267	159	40	11	7	1	23	26	1	61	39	72	15	16	63	.....
Serbian.....	123	74	4	.....	.....	.....	11	34	.....	1	38	63	13	5	3	.....
Slovak.....	1,074	404	2	.....	1	.....	110	557	3	157	308	363	60	138	45	.....
Spanish.....	7	2	.....	.....	.....	.....	5	.....	.....	2	3	.....	2	.....	.....	.....
Swiss.....	330	148	32	28	23	.....	53	46	.....	132	75	95	10	8	9	.....
Syrian.....	23	1	.....	3	4	.....	4	11	2	9	7	4	1	.....	.....	.....
Turkish.....	2	1	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	1	.....
Totals.....	70,688	28,103	6,578	6,345	3,612	530	10,098	15,422	254	724	28 11,341	30,789	4,103	5,292	2,998	1

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TABLE 44.—Admissions and Rejections, by Divisions, for the Fiscal Year 1929-30

	Ocean Ports		International Boundary Ports		Ocean Ports and International Boundary Ports	
	Admissions	Rejections	Admissions	Rejections	Admissions	Rejections
Eastern Division—						
Quebec.....	70,688	115				
Halifax.....	42,584	65				
St. John.....	14,631	31				
North Sydney.....	1,176	15				
Montreal.....	516	39				
Sydney.....	17					
New York.....	1,607	14				
Boston.....	23					
International Boundary Ports.....			19,805	23,328		
Totals.....	131,242	279	19,805	23,328	151,047	23,607
Western Division—						
International Boundary Ports.....			8,052	621	8,052	621
Pacific Division—						
Vancouver.....	1,038	19				
Victoria.....	229	23				
International Boundary Ports.....			2,870	769		
Totals.....	1,267	42	2,870	769	4,137	811
Other Ocean Ports.....	52				52	
Grand totals.....	132,561	321	30,727	24,718	163,238	25,039

TABLE 45.—Rejections, at Ocean Ports, by Causes and Nationalities, from 1902-03 to 1929-30

Fiscal Years																			
	1902-03 to 1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	Totals
<i>By Causes</i>																			
Medical causes.....	4,162	398	319	34	30	12	19	21	99	60	37	130	83	40	95	104	94	78	5,815
Civil causes.....	5,094	1,429	679	129	144	59	51	641	854	1,023	595	862	948	226	594	215	266	243	14,052
Totals.....	9,256	1,827	998	163	174	71	70	662	953	1,083	632	992	1,031	266	689	319	360	321	19,867
<i>By Nationalities</i>																			
British.....	1,240	171	169	42	28	5	11	108	183	153	98	187	199	109	209	150	154	160	3,386
American.....	1,775	12	29	28	15	11	9	8	11	7	4	6	11	.....	5	2	3	8	3,344
Other countries.....	7,841	1,644	800	93	131	55	50	546	749	923	530	799	821	157	475	167	203	153	16,137
Totals.....	9,256	1,827	998	163	174	71	70	662	953	1,083	632	992	1,031	266	689	319	360	321	19,867

TABLE 46.—Deportations, after having been admitted, by Causes, Nationalities and Provinces, from 1902-03 to 1929-30

Fiscal Years																		
1902-03 to 1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	Totals
<i>By Causes</i>																		
Medical charges.....	570	379	206	98	39	70	123	133	313	282	649	420	410	470	519	650	600	8,222
Public charges.....	715	789	635	161	91	103	158	236	950	679	775	543	506	354	430	444	2,106	12,528
Criminality.....	376	404	329	277	274	236	334	586	630	543	511	520	453	447	426	441	591	8,461
Other civil causes.....	163	128	68	60	84	35	22	52	105	76	93	58	189	149	257	194	107	2,370
Accompanying de- ported persons.....	145	10	34	5	9	39	10	18	48	52	78	145	158	165	254	235	559	2,001
Totals.....	6,907	1,734	1,243	605	527	454	655	1,044	2,046	1,632	2,106	1,686	1,716	1,555	1,886	1,964	3,963	33,587
<i>By Nationalities</i>																		
British.....	952	877	602	186	36	99	184	295	1,107	888	1,377	985	899	808	1,047	1,083	2,983	18,766
American.....	405	461	437	324	407	279	392	616	725	520	417	321	330	351	297	294	228	7,870
Other countries.....	1,483	477	396	204	95	84	76	133	214	224	312	380	487	426	542	587	752	6,951
Totals.....	6,907	1,834	1,734	1,243	605	527	655	1,044	2,046	1,632	2,106	1,686	1,716	1,555	1,886	1,964	3,963	33,587
<i>By Provinces</i>																		
Maritime Provinces.....	147	45	55	48	19	18	22	52	74	54	38	92	43	48	48	70	93	938
Quebec.....	371	397	236	108	123	96	118	174	297	277	301	206	233	233	240	255	480	5,734
Ontario.....	1,589	574	543	461	233	166	247	375	895	587	547	675	620	951	646	600	1,115	11,923
Manitoba.....	334	199	193	143	40	59	21	66	228	180	802	242	195	177	279	403	1,296	10,748
Saskatchewan.....	{	59	85	96	54	37	31	30	52	115	132	110	113	118	197	173	277	
Alberta.....		164	224	114	114	34	30	19	57	88	173	102	134	178	169	260	187	
British Columbia.....		491	287	228	145	116	91	103	141	237	264	206	282	334	259	216	396	
Yukon Territory.....	1	.....	3	.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	306	4,246
Totals.....	6,907	1,834	1,734	1,243	605	527	655	1,044	2,046	1,632	2,106	1,686	1,716	1,555	1,886	1,964	3,963	33,587

TABLE 47.—Immigration, from the United States, showing Racial Origin, Sex for the Fiscal

Racial Origin	Nova Scotia				New Brunswick				Prince Edward Island				Quebec				Ontario			
	18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Albanian.....																		1		
Arabian.....																				
Armenian.....																	8	3	1	2
Belgian.....	1				1								4	4	1		26	13	3	5
Bohemian.....													2	1			9	11	5	1
British—																				
English.....	37	37	40	33	134	105	76	83	6	1	5	3	482	294	128	129	2,510	1,297	535	565
Irish.....	11	10	11	6	30	20	17	15	4	3	3	3	181	118	46	52	988	491	169	180
Scotch.....	14	9	19	10	16	13	11	14	4	3	4	5	159	77	23	39	859	452	195	193
Welsh.....	1	1	1										10	6		2	87	33	18	9
Bulgarian.....																	1			1
Croatian.....																	3		3	1
Czech.....																	3	3	1	2
Dutch.....	1		1	1	8	3							31	8	7	7	145	75	23	17
Estonian.....																				
Finnish.....					1								4	1			21	20	5	2
French.....	1	7	14	7	70	57	76	71	1	1	13	3	680	590	691	677	402	263	103	111
German.....	5	4	6	2	9	2		1					126	59	19	15	856	476	149	152
Greek.....													4	1	1		24	5	4	7
Hebrew.....	5			1	1								97	50	19	25	177	97	45	25
Italian.....	1	2		1									27	7		1	92	32	23	20
Jugo-Slav.....			1														12	10	4	3
Lettish.....																				
Lithuanian.....													3				8	3	1	
Magyar.....													5	2			29	24	2	3
Maltese.....																	1			
Montenegrin.....													1							
Negro.....													24	13	1	1	111	55	8	12
North American																				
Indian.....													2	1		1	3	6		8
Polish.....					1	1							14	9	3	3	55	26	12	10
Portuguese.....					1	1							2					2		
Roumanian.....													5	1			2	3	3	5
Russian.....													11	4			8	4	2	
Ruthenian.....													1				5	3	3	
Scandinavian—																				
Danish.....					2		2						4	2			39	17	8	11
Icelandic.....																				
Norwegian.....					1	1							14	3	1	2	61	32	14	14
Swedish.....			1		2	1	1						22	8	6	4	110	54	17	18
Serbian.....																	13	2	2	
Slovak.....													2	2			6	7	2	1
Spanish.....													3	3	3	1	10	5		
Spanish American.....																		2	1	1
Swiss.....													6	2		1	33	16	4	4
Syrian.....			1		1								3	3	1		12	9	4	4
Turkish.....																	1			
Totals.....	77	73	92	61	278	204	183	184	15	8	25	14	1,929	1,269	950	961	6,731	3,556	1,371	1,383

and Age, 18 years and over and under 18 years, by Province of Destination,
Year 1929-30

Manitoba				Saskatchewan				Alberta				British Columbia				Yukon Territory				Northwest Territories				Not given			
18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
																			</								

TABLE 48.—Immigration, via Ocean Ports, showing Racial Origin, Sex and Age Year,

Racial Origin	Nova Scotia				New Brunswick				Prince Edward Island				Quebec				Ontario			
	18 yrs. and over		Under 18 yrs.		18 yrs. and over		Under 18 yrs.		18 yrs. and over		Under 18 yrs.		18 years and over		Under 18 years		18 years and over		Under 18 years	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Albanian.....													9	2	1	.....	11	.....	2	.....
Arabian.....													3	.....	1	.....	.....	.....	.....	.....
Armenian.....													1	1	.....	1	1	8	1	1
Belgian.....	7	6	2	1	1	1	.....	.....	.....	.....	.....	.....	106	52	13	14	102	94	39	35
Bohemian.....																	2	.....	.....	.....
British—																				
English.....	612	317	182	186	191	119	141	112	4	3	.....	.....	2,120	1,290	1,398	433	5,761	4,426	2,547	1,726
Irish.....	53	28	20	8	50	18	39	24	9	2	1	2	1,060	555	251	164	2,549	1,931	737	598
Scotch.....	61	56	31	30	98	86	208	87	4	4	4	5	1,195	1,043	555	372	3,614	3,772	1,628	1,323
Welsh.....	10	8	8	4	22	23	32	27	5	.....	.....	.....	125	67	92	41	610	299	243	171
Bulgarian.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	2	3	.....	.....	234	27	13	4
Croatian.....	3	4	4	2	.....	.....	.....	.....	.....	.....	.....	.....	6	22	11	10	31	135	71	69
Czech.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	23	7	11	8	42	25	23
Dalmatian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dutch.....	4	3	2	1	5	1	2	4	1	1	.....	1	82	30	17	13	246	132	111	87
East Indian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Esthonian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	2	4	.....	.....
Finnish.....	7	4	.....	1	14	9	.....	2	.....	.....	.....	.....	598	603	45	52	1,115	1,224	155	193
French.....	15	15	4	4	3	1	2	.....	.....	.....	.....	.....	212	125	28	29	59	40	16	8
German.....	26	11	7	3	13	8	1	5	3	4	.....	1	751	368	111	98	658	552	220	239
Greek.....	1	.....	.....	2	1	.....	1	.....	.....	.....	.....	.....	17	27	3	5	397	62	23	20
Hebrew.....	6	3	.....	6	9	3	.....	.....	.....	.....	.....	.....	421	450	158	160	536	600	236	208
Italian.....	3	8	2	4	.....	1	.....	.....	.....	.....	.....	.....	50	80	56	24	129	303	236	125
Japanese.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....
Jugo-Slav.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	8	1	3	46	101	46	36
Lettish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	3	4	1	1
Lithuanian.....	.....	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	24	95	26	22	17	64	25	26
Magyar.....	8	17	12	12	.....	1	.....	.....	.....	.....	.....	.....	74	192	87	116	147	559	297	309
Maltese.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	13	9	10	5
Moravian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	1	5	2	5
Negro.....	4	11	3	1	4	7	2	.....	.....	.....	.....	.....	8	87	1	8	2	53	.....	3
Persian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Polish.....	2	9	2	3	.....	2	.....	.....	.....	.....	.....	.....	73	156	52	67	171	513	197	199
Portuguese.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	1	3	.....	1
Roumanian.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	7	23	8	4	4	41	21	22
Russian.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	17	3	3	18	48	18	17
Ruthenian.....	4	2	.....	2	1	1	1	.....	.....	.....	.....	.....	73	178	55	62	190	487	211	192
Scandinavian—																				
Danish.....	54	28	22	17	130	34	22	21	2	1	1	.....	262	154	24	15	170	122	44	40
Icelandic.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norwegian.....	5	4	1	.....	8	4	3	4	2	1	.....	.....	105	74	11	11	86	46	13	7
Swedish.....	11	3	3	.....	6	3	.....	.....	.....	.....	.....	.....	212	79	16	8	342	145	55	29
Serbian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....
Slovak.....	3	7	2	1	.....	.....	.....	.....	.....	.....	.....	.....	30	169	77	67	78	277	133	123
Spanish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	4	3	.....	1	2	.....	1
Swiss.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	127	53	7	5	66	32	4	.....
Syrian.....	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	11	4	4	4	8	1	3
Turkish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2	2	.....	.....
Totals.....	903	552	307	281	555	329	458	287	33	16	6	9	7,784	6,060	3,129	1,835	17,467	16,208	7,399	5,859

18 years and over and under 18 years, by Province of Destination, for the Fiscal 1929-30

Manitoba				Saskatchewan				Alberta				British Columbia				Yukon Territory		Northwest Territories			
18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 years and over		Under 18 years		18 yrs and over	Under 18 yrs	18 yrs. and over	Under 18 yrs.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
1										1		2									
94	31	14	10	17	17	7	4	3	7	2	3	4	5	4	1						
3	5	7	1									2									
2,939	624	546	317	566	552	367	220	802	704	509	403	843	766	271	230	10					
472	156	87	76	159	132	60	35	197	143	122	98	138	102	33	50			1			
1,135	318	149	129	269	271	87	92	317	327	132	164	398	370	155	153	1					
403	56	57	46	39	30	33	16	137	96	100	71	51	44	22	17						
	1				1				1	2	1			3	2						
244	4	3	2	6		3		24	17	8	4	20	42	16	10						
97	53	22	20	5	13	11	4	18	19	13	10		2	1	2						
				1	1	2	2					1									
223	121	92	71	84	68	58	54	86	54	24	24	21	17	8	7						
												2	21	32	3						
56	25	2	3					5	5	1	1	2	5		3						
60	12	4	2	16	13	3	5	34	13	4	2	239	97	26	13						
20	8	4	2	34	20	3	9	8	9	1		7	9	1		2					
5,410	1,982	689	632	557	489	290	254	398	373	184	164	80	85	26	26						
9	3	1		9	6	4		4	1			1	19	18							
168	263	41	52	33	46	15	17	20	24	8	13	24	13	8	3						
3	10	9	2		6	7	5	9	29	14	6	23	57	47	39						
				1					2			68	77	29	12	1					
397	86	9	8	8	9	2	3	40	17	14	8	20	32	10	7						
23	13	7	6	1				1	5			1	2								
318	135	15	23	21	39	9	7	21	39	12	18	2	2	1							
2,077	339	117	117	138	176	97	99	168	219	121	143	9	15	9	13						
1								1													
				1		1	2	1	1	1											
												1									
1,861	1,192	543	469	133	203	68	71	140	231	99	113	11	15	8	7						
	1			1	1							1									
123	49	15	21	6	11	5	3	5	6	1		1	3	1	2						
280	114	46	52	16	16	7	11	25	18	4	9	3	12	3	8						
3,988	1,905	839	761	254	408	192	144	320	534	216	203	13	34	11	10						
609	95	21	20	99	52	36	20	225	138	60	68	33	34	6	5	1					
3				1	1			1													
424	105	19	22	261	113	54	37	211	112	41	36	234	117	48	36	1					
745	61	32	25	127	42	20	17	153	41	18	26	453	158	56	32						
157	57	5	6	3	8	5		3	7	2	2	2	2								
1,144	221	50	47	32	47	23	28	63	91	60	50	7	24	15	10						
3				1		1						3		3	2						
58	22	20	18	15	6	1	2	9	7	1	2	9	4	1	1						
2	1	2		2	3	3	1	2				2	1	1							
												1									
23,550	8,068	3,467	2,960	2,911	2,802	1,472	1,162	3,452	3,323	1,773	1,645	2,748	2,188	854	692	16			1		

REPORT OF THE CHIEF CONTROLLER OF CHINESE IMMIGRATION, A. L. JOLLIFFE

The head tax of \$50 imposed upon Chinese in 1885, which was increased to \$100 on January, 1901, and to \$500 on January 1, 1904, was abolished under the provisions of the Chinese Immigration Act, 1923. Under the provisions of the present Act the entry to Canada of persons of Chinese origin, or descent, is confined to members of the following classes:—

- (a) Members of the diplomatic corps, or other government representatives, their suites and their servants, and consuls and consular agents;
- (b) Children born in Canada of parents of Chinese race or descent, who have left Canada for educational or other purposes, on substantiating their identity to the satisfaction of the controller at the port or place where they seek to enter on their return;
- (c) (1) Merchants as defined by such regulations as the minister may prescribe; (2) Students coming to Canada for the purpose of attending, and while in actual attendance, at any Canadian university or college authorized by statute or charter to confer degrees.

During the fiscal year 1929-30 no Chinese immigrants were admitted to Canada. One student coming to attend a Canadian university, who will return to China when his studies have been completed, was admitted as a non-immigrant. Three Chinese were deported during this period under various provisions of the Act.

Permits were issued under section 9 authorizing the temporary admission for periods up to one year, of 80 Chinese, consisting mainly of actors and actresses under contract to appear in the different Chinese theatres, amahs, and servants of tourists, missionaries, students and teachers. Of this number, 48 have left Canada within the year. In the case of actors, amahs, servants and teachers, cash or guarantee bonds are required by the department, guaranteeing that they will engage in no other wage earning occupation and that they will leave Canada within the period of their permit.

Five thousand six hundred and eighty-two Chinese registered out during the present year, as provided for in sections 23 and 25 in the case of Chinese leaving Canada with the declared intention of returning. This registration, for which a \$2 fee is charged, entitles the registrant to re-entry within two years. The number of Chinese registered out who have allowed their registrations to lapse, thereby forfeiting the right of readmission, is increasing.

During the fiscal year under review administrative fines were collected in eleven cases under section 19, and in three cases under section 31 of the Chinese Immigration Act. During this period the tax provided in section 27 of the Act was paid by seven Chinese and a bond of \$1,000 was also estreated.

For the purpose of comparison the following table relating to Chinese Immigration is given:—

	Exemptions	Paying tax	Percentage of total arrivals admitted exempt	Registered for leave	Total Revenue
1912-13.....	367	7,078	4.93	3,742	\$ 3,540,242
1913-14.....	238	5,274	4.32	4,143	2,644,593
1914-15.....	103	1,155	8.19	4,373	588,124
1915-16.....	68	20	77.27	4,064	19,389
1916-17.....	121	272	30.79	3,312	140,487
1917-18.....	119	650	15.47	2,907	336,757
1918-19.....	267	4,066	6.16	3,244	2,609,669
1919-20.....	181	363	33.27	5,529	538,479
1920-21.....	1,550	885	63.56	6,807	474,332
1921-22.....	287	1,459	16.44	7,532	743,032
1922-23.....	59	652	8.30	6,682	434,557
1923-24.....	49	625	7.27	5,661	334,039
1924-25.....				5,992	308,659
1925-26.....				3,947	25,969
1926-27.....				5,987	14,844
1927-28.....	1	2	33.33	5,087	25,679
1928-29.....	1		100.00	5,480	30,795
1929-30.....				5,682	30,799
Totals.....	3,411	22,501	13.16	90,171	\$ 12,849,445

REPORT OF COMMISSIONER OF COLONIZATION, W. R. LITTLE

BRITISH IMMIGRATION

EMPIRE SETTLEMENT

Assisted Passage Agreements.

The Assisted Passage Agreement of January 1, 1929, a summary of which appeared in the report of the last fiscal year, expired on December 31, 1929, being replaced by a similar Agreement dated December 28, 1929. The rates payable by assisted migrants remained the same as provided by the previous Agreement.

During the fiscal year ended March 31, 1930, five distinct classes of British migrants were eligible for passage assistance on nomination either by British Subjects resident in Canada or the accredited representatives of the Department. The groups or classes of migrants thus eligible were as follows:—

1. Families for settlement under approved farm settlement schemes, such as the New Brunswick Land Settlement Scheme;
2. Families for placement in farm employment either under direct nomination from Canada or under placement arrangements of the department, provincial governments, or organizations approved by the department;
3. Wives and dependent children under 17 under the scheme for the Re-Union of Families. No applications under this scheme were accepted, however, after the close of the calendar year 1929.
4. Houseworkers;
5. Juvenile migrants.

Families for Farm Settlement.

Five hundred and twenty-two families, comprising a total of 2,908 souls, arrived during the fiscal year under approved farm settlement schemes. This total included 306 under the 3,000 Family Scheme which was concluded during the year. During the same period 96 families were settled under the New Brunswick Family Settlement Scheme and 120 families under the Scheme of the Canadian Pacific Railway and the Hudson's Bay Oversea Settlement Limited.

Families for Placement in Farm Employment.

Three hundred and sixty-nine families came to Canada under direct nomination by British subjects resident in Canada who offered them farm employment under conditions inspected and approved by the department.

Seven hundred and eighty-six families received assisted passages on the nomination of the overseas representatives of the department and came to Canada for farm placement.

Under the Family Re-Union Scheme 380 wives (accompanied by their children under 17 years of age) were enabled to join their husbands in Canada.

Juvenile Immigration.

The scheme of provincial reception and distributing farms for British boys has been explained in previous reports. The movement under this scheme continued during the year, a total of 2,309 boys having been brought forward under the various agreements. Particulars of the movement of juveniles under the auspices of approved societies will be found in the report of the Supervisor of Juvenile Immigration.

Empire Settlement Statistics.

A statistical statement of Empire Settlement migration is embodied in the report of the Acting Director of European Emigration.

Agricultural Trainees.

Almost the whole movement of agricultural trainees took place in the early months of the fiscal year when 3,257 young men, after receiving instruction at Government training farms in Great Britain and Northern Ireland, proceeded to Canada and were placed in farm employment. About 50 per cent of the total were placed in the province of Ontario under the supervision of Mr. George A. Elliott, Provincial Director of Colonization, Toronto, and the balance, with the exception of small groups placed in the Eastern Townships of the province of Quebec through the Eastern Townships Immigration Society, and in Prince Edward Island by the provincial authorities, were placed in the Prairie Provinces under the direction of the Division Commissioner of the Department at Winnipeg, assisted by the Field Organization of the Land Settlement Branch.

These trainees were not Empire Settlement passengers and no contribution was made by Canada towards their transportation.

THE UNITED STATES FIELD

The office at Indianapolis was closed and the agent transferred to our Information Bureau in Chicago. The area formerly covered by the Canadian Government Information Bureau at Indianapolis will now be under the jurisdiction of the agent at Chicago.

Canadian agricultural products were displayed at fifty-one exhibitions. It is estimated that the attendance at these exhibitions was approximately 6,500,000.

Monthly reports received from our various offices show that many of the settlers from the United States had substantial capital and were experienced agriculturists.

STATISTICS compiled from the Monthly Reports received from each Canadian Government Information Bureau in the United States during the fiscal year ended March 31, 1929.

Agency	Number of enquiries	Settlers reported by agent		No. Car-loads	Good prospects outstanding
		Family heads	Souls		
Fargo.....	4,114	1,751	2,673	171	2,895
Spokane.....	3,066	864	1,538	25	571
Detroit.....	2,386	694	1,172	16	335
Minneapolis.....	2,247	538	1,198	62	617
Kansas City.....	2,517	538	905	4	361
Omaha.....	1,192	401	662	5	327
Great Falls.....	1,558	387	640	14	347
Buffalo.....	2,428	369	751	3	293
Boston.....	657	268	675	.....	40
Woonsocket.....	1,093	254	859	11 and 64	445
San Francisco.....	2,123	239	521	2	73
Chicago.....	1,427	236	472	17	306
Manchester.....	684	169	556	3	101
Columbus.....	1,253	104	227	3	129
Indianapolis.....	971	79	157	.....	284
Totals.....	27,716	6,951	13,056	336	7,124

REPORT OF THE ASSISTANT DIRECTOR OF EMIGRATION FOR CANADA IN EUROPE, ANDREW O'KELLY

Migrants eligible for the reduced rate under the Assisted Passage Agreement may be classified as follows:—

- Selected families for farm settlement.
- Selected families for farm placement.
- Houseworkers.
- Juveniles.

District agents are now recruiting families for settlement under the New Brunswick Family Settlement Scheme, and reports indicate that it will be possible to obtain the quota of one hundred families of a suitable type for settlement in New Brunswick.

District agents are also engaged in the work of interviewing and selecting agricultural families for placement under the various organizations.

The requirements of provincial Governments participating in the Boys' Reception and Distributing Farms were completed during April and May, 1929. The quotas of British boys fixed by provincial Governments for placement through provincial centres during the spring of 1930 were received during the fall of 1929, and in sufficient time to make the necessary arrangements for the selection of a good type of boy. Substantial progress has already been made in completing the provincial quotas, and parties have already sailed to New Brunswick, Manitoba, Saskatchewan, and British Columbia.

Our district agents are co-operating closely with the educational authorities throughout the United Kingdom, and we do not anticipate any difficulty in meeting the requirements of the provinces for this type of migrant. Successful settlement is the most effective medium for the recruitment of a good type of British boy.

The new British Boy film was received somewhat late in the spring but was displayed with good results. Our district agents have already established contact with educational and other organizations for the effective display of these films, and arrangements will be made early in the summer for the allocation of these films to the various districts during periods when the agent considers that this form of propaganda will be most effective.

The following is a summary of the work of the department in the British Isles and the Continent of Europe:—

ADVERTISING

Advertisements were inserted in 459 papers, mainly newspapers and journals circulated in agricultural areas. The advertisements were changed from time to time to suit requirements, e.g., New Brunswick Family Settlement Scheme, Provincial Juvenile Schemes and houseworkers. The total sum expended in advertising was £8,855.7.1.

EXHIBITIONS

The department was represented at 105 agricultural shows in the British Isles. The figures show that 1,265,263 visitors attended these Shows where our agents distributed 230,940 pamphlets. The total sum expended on exhibitions was £1,009.12.8.

FILMS

Four new films were received in January, February and March. Two of these films, "Boy Farmers" and "Canadian Champion Ploughmen" were used to some advantage in the early spring.

LANTERN SLIDES

The sets of lantern slides on hand have been revised and brought up to date. There was a good demand for lantern slides and the various sets have been displayed on 1,426 occasions.

LECTURES

Our agents gave 291 lectures during the last three months of the calendar year and a few lectures in the spring of 1930. Some of these lectures were given in the higher grade schools and academics for the purpose of interesting British boys in land settlement. The expenditure on lectures was £1,641.5.7.

LITERATURE

The total number of pamphlets distributed was 817,799. The new pamphlet "Boy Settlement in Canada" has been effectively used in recruiting British boys for the various provincial schemes and there has also been a considerable demand for "Farm Opportunities in Canada". Out of this total about 35,000 pieces were requisitioned by the Exhibition Commissioner, and were used by him at Trade and Commerce Exhibitions, such as the British Industries Fair, London and Birmingham, the Ideal Homes Exhibition in London and Empire Week and Empire goods displays; also at the Apple Show organized by the Fruit Commissioner.

MOTOR EXHIBITION CAR

The motor exhibition car covered 7,498 miles and visited 773 towns and villages, 574 schools, 46 markets and participated in 13 Empire street pageants. Through the medium of the motor car 52,430 pamphlets were distributed at schools and in rural areas. The cost of the operation of the exhibition motor car was £477.8.7.

OFFICIAL NEWS BUREAU

The press of the United Kingdom was kept informed of successful settlement through the medium of articles, paragraphs and photographs. The whole tenor of this publicity was carefully adapted to meet the requirements of the various provinces. The insertion was secured of well over 4,000 paragraphs and articles. Close and constant touch was maintained with individuals and organizations whose activities had a bearing on Canadian interests. To an increasing extent throughout the year the bureau had been made use of by the national newspapers who appreciate the existence of facilities for prompt and reliable information.

CORRESPONDENCE

The number of letters received at the London Office this year was 205,137. The total despatched was 155,871.

The number of letters received by all agents in the British Isles was 241,456, and the total sent out by our provincial agents amounted to 276,220, making for the United Kingdom a total of 446,593 received, and 432,091 mailed.

The total number of callers at all offices in the British Isles amounted to 93,063.

BRITISH FAMILY SETTLEMENT SCHEME

Warrants have been issued to cover 306 families for settlement under the 3,000 Family Scheme. These families comprised 1,583 souls. The above movement finally completes what is known as "The British Family Settlement Scheme".

NEW BRUNSWICK FAMILY SETTLEMENT SCHEME

Warrants have been issued to cover 96 families who were selected for the New Brunswick Family Settlement Scheme. These 96 families comprise 650 souls. The New Brunswick Agreement is dated August 4, 1927, and provides for the settlement of 500 families within a period of six years. Altogether 199 families have arrived. There are still 301 families to be settled under this Scheme.

TRAINING CENTRES

The Oversea Settlement Committee have provided facilities for the preliminary testing and training of intending settlers. During the year the following training centres were in operation:—

Single Men (Agricultural Training).—Claydon, near Ipswich, which was opened in September, 1925 and Brandon, Suffolk, which was opened in February, 1926. Additional centres have been established at Carstairs, Lanarkshire and at Richhill in Northern Ireland. The Army Training Centre at Catterick which has been removed to Chiseldon, has also been made available for training civilians. Single men were also trained at the Hudson's Bay Company's farm at Brogborough Park, Bedfordshire and at the Church of Scotland Farm at Cornton Vale near Stirling.

Boys (Agricultural Training).—Farm training centres for boys have also been established under the auspices of local Migration Committees at Newcastle, Liverpool, Hull and Bristol. Boys were also trained at the Salvation Army's Training Farm at Hadleigh, Essex; The Church Army's Training Farm at Hempstead, Essex; Dr. Cossar's Farm at Craigielinn, near Paisley, and also by various charitable societies.

Women (Household Work).—Hostels for the training of houseworkers are being operated under the auspices of various organizations in Cardiff, Newcastle, Glasgow and London. The training centre at Market Harborough is

also now in use as a training centre for women for Canada and the other Dominions. This centre is under the auspices of the Society for the Oversea Settlement of British Women.

Families.—Families selected by the British Legion are also being trained at the Army Vocational Training Centre at Chiseldon for settlement on the land in Canada.

SUMMARY of Empire Settlement Warrants Issued, Fiscal Year 1929-30

	F.	P.	Families	Persons
<i>Family Settlement Schemes—</i>				
3,000 Family Scheme.....	306	1,583		
N. B. Family Scheme.....	96	650		
H.B. C.P.R. Family Scheme.....	120	675		
			522	2,908
<i>Family Farm Placements and Nominations.....</i>			1,182	4,781
<i>Family Reunion Scheme.....</i>			380	1,076
<i>Houseworkers, Women Joining Husbands, etc.—</i>				
Houseworkers.....		4,455		
Others.....		499		
				4,954
<i>Juveniles—</i>				
Provincial Schemes.....		2,309		
Juvenile Immigration Societies.....		2,211		
				4,520
Total.....			2,084	18,239

PROVINCIAL RECEPTION AND DISTRIBUTING FARMS

The following statement shows the number of British boys who were selected under the various Provincial Schemes:—

Ontario.....	445
Manitoba.....	117
Saskatchewan.....	77
Nova Scotia.....	59
British Columbia.....	35
New Brunswick.....	8
	741
Alberta Provincial Agreement.....	10
British Immigration and Colonization Association.....	1,558
	2,309

JUVENILE EMIGRATION SOCIETIES

Catholic Emigration Association.....	376
United Church of Canada.....	462
Salvation Army.....	331
Church Army.....	190
Church of England Council of Empire Settlement.....	306
Barnardo's Homes.....	130
Dr. Cossar.....	131
National Children's Home and Orphanage.....	61
Waifs and Strays Society.....	101
Fegan's Home.....	38
Middlemore Homes.....	5
Quarrier Homes.....	57
Oliver Hind.....	6
	2,194
	4,503
McDonald College.....	17
Total.....	4,520

NOMINATIONS

The number of nominations by persons in Canada and by emigration agents in the British Isles was 5,483.

Office of Origin	3,000 Family Scheme					New Brunswick Scheme					Reunion Cases					Total Persons	Total Warrants	
	M.	F.	C.	Number of Persons	Number of Warrants	M.	F.	C.	Number of Persons	Number of Warrants	M.	F.	C.	Number of Persons	Number of Warrants			
Belfast office.....	43	38	113	194	38	18	19	109	146	18	....	64	159	....	223	75	563	131
Birmingham office.....	8	9	17	34	8	9	10	14	33	7	....	4	7	....	11	4	78	19
Bristol office.....	17	17	48	82	17	9	10	37	56	8	....	13	23	....	36	15	174	40
Cardiff office.....	32	30	115	177	26	11	13	50	74	10	....	17	35	....	53	19	304	55
Chiseldon Farm trainees.....	48	48	110	206	48	....	....	....	....	....	....	....	....	....	....	....	206	48
Dublin office.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Glasgow office.....	92	86	276	454	82	26	22	84	132	....	....	2	5	....	7	2	7	2
Inverness office.....	10	10	35	55	10	11	10	30	51	21	....	113	265	....	378	134	964	227
Liverpool office.....	27	24	59	110	23	7	6	30	43	6	....	17	38	....	55	18	161	34
London office.....	7	7	23	37	7	3	3	11	17	7	....	34	66	....	100	37	253	67
York office.....	51	47	136	234	47	20	18	60	98	16	....	21	39	....	60	25	114	35
Totals.....	335	316	932	1,583	306	114	111	425	650	96	1	342	733	....	1,076	380	3,309	782

CONTINENTAL EUROPE

Continental immigrants are examined at Antwerp, Paris, Rotterdam, Hamburg and Danzig. The office at Riga was closed on September 30, 1929.

SYNOPSIS OF SPECIAL GROUPS

Railways Agreement.—The number of immigrants moved under the Railways Agreement was 27,148. This is a decrease of 16,555 as compared with the number of persons who migrated during the fiscal year 1928-29.

Canadian Mennonite Board.—The statistics show that 969 persons proceeded under the auspices of this organization during the past fiscal year.

Mennonite Emigration Aid Society.—The records indicate that some 142 persons were moved under the auspices of this Society.

Lutheran Immigration Board.—The number of persons proceeding through this Organization amounted to 1,689.

Canadian Lutheran Immigration Aid Society.—This society has been responsible for the movement of 968 persons.

Association of German Canadian Catholics.—During the past fiscal year 1,696 persons have proceeded to Canada under the auspices of this organization.

Catholic Immigration Aid Society.—The records show that 1,168 persons have gone forward under the auspices of this society.

German Baptist Board.—Some 176 persons are shown as having proceeded to Canada through this organization.

STATEMENT of Preliminary Civil Inspection showing passports, visaed, rejections, appeals, causes of rejections, etc.

Office	Ad-mis-sions	Re-jec-tions	Sust.	Appeals.				Causes of Rejection								Letters in	Letters out	Inter-views
				Dis-m.	Pend. Mar. 31st.	P.C. 182	P.C. 183	P.C. 185	Sec. 3 ss.									
									b.	c.	j.	t.						
Antwerp.....	5,770	328	72	87	1	3	134	44	13	98	8	1	10,108	14,208	11,841			
Paris.....	9,410	768	89	97	10	8	288	233	44	215	16	11	5,888	6,758	5,086			
Rotterdam.....	2,231	119	34	37	4		47	3	4	27	9		3,517	4,077	4,476			
Hamburg.....	13,864	1,087	123	176	16		180	21	132	342	3	2	5,968	10,403	3,331			
Danzig.....	22,838	2,130	1,144	598	75		411	11	344	488	3	31	6,851	15,166	4,353			
Riga.....	439	65	19	10			9	4	8	21	3		1,037	1,088	328			
Totals.....	54,552	4,497	1,481	1,005	106	11	1,069	316	545	1,191	42	45	33,369	51,700	29,415			

NOTE.—Some aliens were rejected on account of more than one statutory cause; consequently, the number of rejections will not correspond with the causes of rejections, e.g., one alien may have been rejected upon two grounds, namely—P.C. 182 and P.C. 183.

REPORT OF THE COMMISSIONER OF IMMIGRATION, A. L. JOLLIFFE

A summary of the immigration activities coming under the immediate supervision of the Commissioner of Immigration was given in the last annual report of the department. For those who have not access to that report it may be well to state that outside of Head office in Ottawa much of the field and other work of the branch functions through three division commissioners located at Ottawa, Winnipeg and Vancouver. Each division commissioner looks after the work within his own division.

The Eastern Division includes all that part of Canada east of Port Arthur. The commissioner for this division is J. S. Fraser, with headquarters at Ottawa.

The Western Division covers the territory lying between Port Arthur, Ont., on the east, and Kingsgate, B.C., on the west. The commissioner in charge of this district is Thomas Gelley, with headquarters at Winnipeg.

The Pacific Division embraces all that part of British Columbia lying west of Kingsgate, including the Pacific ocean ports. The commissioner in charge of this division is A. E. Skinner, with headquarters at Vancouver. Mr. Skinner also has charge of such inspectional work as is done at Seattle, Wash.

Immigration inspection at Atlantic and Pacific ports and on the international boundary together with the consideration of appeals of those rejected, occupies first place in the amount of work involved but this is followed at no great distance by a vast amount of follow up, investigational and other work arising out of complaints and difficulties of immigrants scattered throughout the Dominion. Those who have to do with the welfare of human beings will know something of the patience and skill required in dealing promptly and efficiently with the difficulties that arise. Each request for deportation involves an inquiry usually by a board of inquiry, the examination of evidence at Head office and also the consideration of an appeal. Whether or not an appeal is entered deportation never takes place without the evidence being considered at Head office.

The investigational work of the department is performed by officers specially selected and trained for the same. In addition to the staffs at the divisional headquarters and ocean ports, investigating officers are located at seven different centres throughout Canada, each covering a prescribed area. By this means the work is carried out expeditiously and economically over a vast territory.

In view of the increasing interest throughout Canada in the removal of immigrants by deportation it is perhaps well to describe briefly both "rejection" and "deportation".

The term "rejection" is defined in the Immigration Act as follows:—

"Rejected as applied to an immigrant or other person seeking to enter or land in Canada, means that such immigrant or other person has been examined by a board of inquiry or officer acting as such and has been refused permission to land in Canada."

The board of inquiry or the immigration officer acting as such is required by law to advise the rejected person of any right of appeal he may have to the minister, and if an appeal is entered to immediately forward the same without cost to the appellant, to the Head office of the department in Ottawa.

When rejection takes place at a Canadian ocean port the rejected person is detained in one of the immigration buildings erected for the examination and detention of immigrants and passengers. The cost of maintenance during detention falls not upon the appellant but upon the transportation company which brought him to Canada. When rejection occurs on the international boundary the person rejected is returned to United States territory to await the result of any appeal that may have been entered.

The term "deportation" is defined in the Immigration Act as follows:—

"Deportation means the removal under authority of this Act of any rejected immigrant or other person or of any immigrant or other person who has already been landed in Canada or who has entered or remains in Canada contrary to any provisions of this Act, from any place in Canada at which such immigrant or person is rejected or detained, to the place whence he came to Canada or to the country of his birth or citizenship."

When a person is seeking to enter or land in Canada the burden of proof rests upon such person but when deportation proceedings are instituted against any person already in Canada the burden of proof rests upon the department.

Deportation is brought about either because the person concerned was a prohibited immigrant at the time of entry to Canada, or became an undesirable after entry to Canada. Certain classes are by the Immigration Act defined as "prohibited". Included in these are the following:—

- (a) Idiots, imbeciles, feeble-minded persons, epileptics, insane persons and persons who have been insane at any time previously.
- (b) Persons afflicted with tuberculosis in any form or with any loathsome disease, or with a disease which is contagious or infectious or which may become dangerous to the public health.
- (c) Immigrants who are dumb, blind, or otherwise physically defective unless satisfactory guarantees are given.
- (d) Persons who have been convicted of, or admit having committed any crime involving moral turpitude.
- (e) Prostitutes, pimps and procurers.
- (f) Persons likely to become public charges.
- (g) Persons who believe in or advocate the overthrow of constituted law and authority, or who are affiliated with any organization teaching disbelief in, or opposition to organized government, etc.
- (h) Beggars, vagrants and charity-aided immigrants.
- (i) Illiterates. Exemption from the literacy test is provided for persons under fifteen years of age, for fathers or grandfathers over fifty-five, for wives, mothers, grandmothers and unmarried or widowed daughters.

If a person belonging to one of the prohibited classes succeeds in effecting entry to Canada, such person remains in the prohibited class, does not by residence in Canada acquire domicile within the meaning of the Immigration Act, and therefore may be deported even after more than five years of residence. Time spent by a person while confined in, or an inmate of a penitentiary, gaol, reformatory, prison or asylum for the insane is not counted in the period of residence in Canada that is necessary to acquire Canadian domicile.

When deportation is brought about for cause arising in Canada such cause with few exceptions must have arisen within five years after landing. Contrary to an opinion apparently widely held in Canada an immigration officer has very restricted powers of summary arrest and deportation; such powers are being limited to cases where the person concerned enters Canada contrary to regulations. In all other cases action looking towards deportation is based upon a written complaint to the Minister of Immigration that the person concerned is an undesirable within the meaning of the Immigration Act. The complaint may be made by the clerk, secretary, or other official of any municipality in Canada or by any officer cognizant of the facts. Upon receipt of the complaint an order of the minister is issued directing an examination and investigation into the facts by a board of inquiry or officer acting as such. A board of inquiry may be described as an immigration court set up under the Immigration Act, and the following provisions quoted from the Immigration Act describe the functions of a board of inquiry:—

“A board of inquiry shall have authority to determine whether an immigrant, passenger or other person seeking to enter or land in Canada or detained for any cause under this Act, shall be allowed to enter, land or remain in Canada or shall be rejected and deported.”

“The hearing of all cases brought before a board of inquiry shall be separate and apart from the public, but in the presence of the immigrant, passenger or other person concerned whenever practicable, and such immigrant, passenger or other person shall have the right to be represented by counsel whenever any evidence or testimony touching the case is received by the board, and a summary record of proceedings and of evidence and testimony taken shall be kept by the board.

“There shall be no appeal from the decision of such board of inquiry as to the rejection and deportation of immigrants, passengers or other persons seeking to land in Canada, when such decision is based upon a certificate of the examining medical officer to the effect that such immigrants, passengers or other persons are afflicted with any loathsome disease, or with a disease which may become dangerous to the public health, or that they

come within any of the following classes, namely, idiots, imbeciles, feeble-minded persons, epileptics and insane persons: Provided always that Canadian citizens and persons who have Canadian domicile shall be permitted to land in Canada as a matter of right.

"In all cases other than provided for in the last preceding section an appeal may be taken to the minister against the decision of any such board of inquiry or officer in charge by the immigrant, passenger or other person concerned in the case, if the appellant forthwith serves written notice of such appeal, which notice may be in the form D in schedule to this Act, upon the officer in charge or the officer in whose custody the appellant may be.

"Notice of appeal shall act as a stay of all proceedings until a final decision is rendered by the minister, and within forty-eight hours after the filing of the said notice a summary record of the case shall be forwarded by the immigration officer in charge to the deputy minister, accompanied by his views thereon in writing."

The opening up of highways and the increase in international boundary travel involves a great deal of inspectional work. The following figures show the immigrant and non-immigrant movement in each division during 1929-30:—

EASTERN DIVISION

Ocean Ports—	
Admissions as immigrants.....	131,242
Rejections.....	279
*Non-immigrants admitted.....	79,523
Investigations.....	4,974
Board of inquiry hearings.....	1,156
International Boundary—	
Admissions as immigrants.....	19,805
Rejections.....	23,328
Non-immigrants admitted.....	29,767,807
Investigations.....	21,971
Board of inquiry hearings.....	7,761

WESTERN DIVISION

Admissions as immigrants.....	8,052
Rejections.....	621
Non-immigrants admitted.....	1,048,395
Investigations.....	8,818
Board of inquiry hearings.....	2,049

PACIFIC DIVISION

Admissions as immigrants.....	4,189
Rejections.....	809
Non-immigrants admitted.....	1,510,181
Investigations.....	1,350
Board of inquiry hearings.....	389

All the division commissioners report a steadily increasing tourist movement across the international boundary and this increase is shown at almost every port of entry. The increase in the number of rejections is due in part to unemployment conditions existing in the United States and also to the operation of the Contract Labour regulation made on the 7th of August, 1929. This regulation prohibits the admission to Canada of any immigrants other than agriculturists and domestics, who come under any contract or agreement express or implied.

In last year's report Windsor, Ont., was named as the port through which the largest number of non-immigrants entered Canada. The total figure for that port being upwards of 8,000,000. During the year under review the number of non-immigrants entering Canada through the port of Windsor was approximately 9,200,000. Through the port of Niagara Falls the number reached almost 6,300,000, and the port of Bridgeburg, which includes Crystal Beach, Erie Beach and the Peace bridge, the number was almost as large.

The Eastern Division Commissioner has in his division 94 ports of entry with 270 full time and 173 part time inspectors. In reporting on the international boundary movement the Eastern Division Commissioner says:—

"Every effort has been made to keep up the efficiency of the work of the division. The port work has been made much heavier by the enormous increase in traffic during the past two years. It is essential that this traffic be handled as rapidly as possible, especially at the larger ports, in order to avoid congestion. Every effort has been made to promote the efficiency of the officers and to better the conditions under which they do their work.

* These include passengers destined to the United States.

We have received during the year fine co-operation from the various transportation companies, and I am glad to report that the very helpful co-operation between our officers and the officers of the Canadian Customs service continues unchanged."

In the Western Division the bulk of the work is not on the international boundary but in looking after immigrants at the time and following their arrival. In Winnipeg immigration halls are maintained. At other points in the Prairie Provinces, especially in the newer districts, smaller immigration halls are maintained. The Western Division Commissioner reports that in Winnipeg shelter was given to 21,311 immigrants, and in halls at other points a total of 7,977. The average stay in the Winnipeg halls was about four days. The Division Commissioner also reports the registration and placement of some 17,500 persons. Incoming mail to the Winnipeg office totalled 106,732, and outgoing mail 108,824 pieces. There was considerable activity in the Western Division during the year in the collection and preparation of exhibits used in the British Isles and the United States. A total of 1,613 boxes of threshed grain, grasses, vegetables, dairy products, etc., were prepared and sent out during the year in addition to 200 smaller boxes containing school exhibits asked for by schools in the United States.

The work in the Pacific Division differs materially from that of the Eastern and Western Divisions in that the ocean ports on the Pacific coast deal largely with migration from the Far East and approximately seventy per cent of the Oriental population of Canada resides in this division. The officers dealing with the problems arising from this situation are trained in this special class of work and a very detailed system of records is maintained for the purpose of properly administering the immigration laws governing this phase of the department's work.

The following figures taken from the census returns of 1921 show the number of immigrants, British and foreign, resident in each province of the Dominion at the time the census was taken, and also the period of immigration:—

	Total	British	Foreign	Immigrated	
				Before 1900	Since 1900
Prince Edward Island.....	2,365	1,074	1,291	843	1,522
Nova Scotia.....	43,505	29,519	13,986	8,654	34,851
New Brunswick.....	21,458	10,709	10,749	5,633	15,825
Quebec.....	188,576	89,864	98,712	35,598	152,978
Ontario.....	641,683	459,577	182,106	135,858	505,825
Manitoba.....	222,372	113,114	109,258	39,918	182,454
Saskatchewan.....	299,677	100,355	199,322	31,621	268,056
Alberta.....	273,364	99,392	173,972	25,472	247,892
British Columbia.....	260,536	160,752	99,784	48,226	212,310

The following statement shows the declared destination of immigrant arrivals in the fiscal years 1922-23 to 1929-30:—

	1929-30	1928-29	1927-28	1926-27	1925-26	1924-25	1923-24	1922-23
Nova Scotia.....	2,346	1,828	2,020	1,815	851	2,085	5,947	2,167
New Brunswick....	2,478	2,106	1,506	1,158	766	1,023	1,881	1,016
Prince Edward Island.....	126	129	215	152	53	45	112	115
Quebec.....	23,917	18,659	18,469	16,642	11,367	16,279	19,979	9,343
Ontario.....	59,974	47,656	45,052	40,604	29,293	45,912	65,280	30,444
Manitoba.....	39,132	57,651	43,596	36,739	19,079	11,772	21,451	6,037
Saskatchewan.....	11,003	14,789	15,331	20,085	13,816	14,041	13,200	8,186
Alberta.....	14,970	16,243	15,473	16,367	12,540	10,952	10,430	8,798
British Columbia..	9,252	8,627	9,891	10,376	8,165	9,222	10,233	6,652
Others.....	90	34	44	53	134	31	47	129

The above figures appear to show that Manitoba received a very much larger immigration than Saskatchewan or Alberta. This is only because Winnipeg is the principal distributing centre for the Prairie Provinces and many immigrants destined to Winnipeg did not settle in Manitoba, but subsequently went on to Saskatchewan and Alberta.

In the statistical section of the report a table will be found showing deportations over an extended period of years. The deportations of the past fiscal year were from the various provinces in the numbers indicated:—

Provinces	1929-30
Maritime Provinces.....	93
Quebec.....	480
Ontario.....	1,115
Manitoba.....	1,296
Saskatchewan.....	277
Alberta.....	396
British Columbia.....	306

In last year's report oversea inspection both medical and civil, was described. This inspection has continued throughout the year under review with the result that the number of rejections at Canadian ocean ports is insignificant in comparison with the number of rejections occurring on the international boundary.

REPORT OF THE DIRECTOR OF PUBLICITY ROBERT J. C. STEAD

During the fiscal year 1929-30 publicity work was carried on by the department mainly in the United Kingdom and the United States. The purpose of this publicity is to make known the settlement opportunities which exist in Canada. In doing so a much wider field than the subject might suggest is covered as it is felt that whatever brings Canada into favourable notice in the two countries mentioned and whatever promotes a better understanding of the Dominion is helpful to the work of the department. Advertising campaigns are conducted; booklets are printed and distributed by mail, by representatives of the department through their offices and at fairs at which they participate and in direct response to inquiries. Canadian news is distributed through a number of channels and is widely reprinted in the press of the United Kingdom and the United States, and to some extent in other countries. Special articles are prepared for magazines and newspapers. Photographs are supplied to distributing agencies and direct to publishers. Information on special topics not always related to colonization is assembled and supplied in response to requests. Inquiries touching on many phases of Canadian life and opportunities are received and answered. In short, all the work of a fully organized publicity office is handled from the headquarters in Ottawa, co-operating with a publicity office in London and with other publicity connections which have been found helpful in the work.

ADVERTISING

Advertising by the department is confined particularly to the British Isles and the United States. Unlike most Government departments, the Department of Immigration and Colonization has little occasion to publish advertisements in Canada, as its field is obviously outside of the Dominion. The advertising appropriation is therefore expended almost entirely on the two countries above stated.

In the British Isles the departmental advertising is placed through an advertising agency under the immediate supervision of the Director of European Emigration for Canada in London, and under the general supervision of head-

quarters at Ottawa. This advertising is limited mainly to brief statements in papers with rural circulation of the opportunities to be found by agriculturists in Canada. Some space is devoted to the field for houseworkers and to the special provision which has been made for British boy immigration. No extravagant hopes of sudden success or of elaborate government assistance are encouraged, the method being rather to make a brief statement of facts and let the reader decide for himself. This advertising is carried on almost exclusively in the winter and early spring months, which, for seasonal reasons, are found to be the most favourable for this purpose. Owing to the high cost of space no attempt is made to give detailed information concerning Canada in the advertisement, the purpose being to direct those who may be interested to the agencies of the department from which they may obtain literature describing the country in detail, and specific replies to any inquiries.

Advertising in the United States has in the past been practically limited to state and national farm journals published in that country. Advertisements were of the display character, occupying spaces of from five or six inches double column to one-half page and in some cases larger. Some advertising of this class was done during the year under review, but on account of changing conditions it was decided to employ classified advertising to a considerable extent during the winter months. This advertising consisted of a brief recital of what Canada has to offer followed by the name and address of the nearest Canadian Government representative. A system of keying enquiries was followed which resulted in accurate credit being given to each paper for the enquiries which it produced. The advertisement was run in most cases among other advertisements of farms for sale where it readily caught the eye of farmers intending to make a change in their location. Owing to the smaller cost of this class of advertising and also to a desire to reach a new field, it was decided to greatly enlarge the number of papers used, with the result that a considerable number of daily papers were employed. The result indicated that these daily papers in many cases produced very satisfactory returns, and the whole outcome of the campaign indicated that enquiries were of a better type and were received at much less cost than those obtained by means of display advertising. Results have been carefully tabulated for future guidance. The display advertising placed in the United States during the year was handled through a Canadian advertising agency but the classified advertising was handled direct by the Publicity Branch working in co-operation with the representatives of the department in the different fields covered. In addition to papers published in English, use was made of a number of papers published in French, and in the Scandinavian and German languages in the United States, as it has been found that the readers of these papers show a considerable interest in settlement opportunities in Canada and constitute a desirable type of settler.

The records of the department show that the total number of inquiries received by the agencies in the United States during the year was 27,711, which represents a small falling off from 28,316 received a year ago. In view of the fact that the advertising expenditure was greatly reduced and also the reports by agents that the type of inquiry was much improved this may be considered a satisfactory figure.

BOOKLETS AND PUBLICATIONS

The advertising of the department is supported by a series of booklets and publications which, as already intimated, give much more detailed information than is practicable in high-priced advertising space. The booklets are compiled and their production supervised by the Publicity Branch. Circulation is made mainly through the agencies of the department in the British Isles and the United States. The publications issued during the year are briefly reviewed hereunder.

The "Descriptive Atlas of Canada" is an 80-page booklet with maps of the Dominion and all of the provinces and much descriptive text matter, profusely illustrated from photographs. The booklet is issued for educational purposes in the British Isles and the United States. It is revised from year to year and is in large demand by schools and other educational institutions in both countries mentioned. An edition of 106,400 copies was printed for distribution in the United States and 104,750 copies for distribution in the British Isles.

In connection with the Boy Scout Jamboree in England a special booklet descriptive of Canada and dealing with the country in a manner of interest to Boy Scouts was compiled and produced, and, through the co-operation of the Canadian officials of the Boy Scout Association, was distributed at the Jamboree. Of this booklet 15,000 copies were issued.

"Boy Settlement in Canada" is a booklet outlining the plan under which the Canadian and British Governments co-operate with a number of provincial governments in settling British boys in those provinces. The booklet explains the plan fully and sets forth the conditions which British boys may expect to find in farm life in Canada. Twenty-nine thousand one hundred copies were printed for distribution in the British Isles.

"British Family Settlement in New Brunswick" is a booklet outlining the plan under which the Canadian Government and the British Government co-operate with the Government of New Brunswick for the settlement of British families in that province. The plan is explained and information given, supported by photographs showing the progress being made by settlers already established. Of this booklet 20,200 copies were issued for distribution in the British Isles.

An attractive departmental calendar for use mainly in the British Isles was issued and 79,150 copies were distributed.

"Canada 1930" is a booklet containing much statistical and other information concerning Canada's development. It was compiled by the Dominion Bureau of Statistics and a special edition was printed for departmental distribution. Distribution was made mainly to educationalists, newspaper offices and libraries in the British Isles and the United States. The quantity was 12,160 copies.

"Eastern Canada" is a 32-page booklet with lithographed covers containing maps of each of the five eastern provinces and much information about agricultural settlement opportunities and conditions, highly illustrated from photographs. An edition of 100,800 copies was completed and supplied for distribution in the British Isles. A similar booklet revised in such respects as are necessary for distribution in the United States was issued, 51,175 copies being provided for that purpose.

"Farm Opportunities in Canada" is a 32-page folder printed in two colours, containing much specific information about the different classes of farming carried on in this country. In this booklet provincial lines are not recognized but rather the division is between different types of farming. The booklet is comparatively inexpensive and is issued in large quantities for distribution among those who have not yet made up their minds in what part of Canada they wish to settle or what branch of farming they wish to follow. During the year a British edition of 209,950 copies was issued.

The "Houseworker in Canada" is a small booklet designed for the information of women and girls in the British Isles who contemplate coming to Canada to engage in housework. This booklet advises them as to immigration forms and regulations, the location of women's hostels in Canada and the regulations under which they may be used, the general nature of housework

required with average rates of compensation and other useful information. Two editions of the booklet were issued during the year, one consisting of 15,000 copies and one of 20,000 copies.

"Information for Settlers" is a leaflet for the convenience of intending settlers from the United States setting forth the customs regulations with respect to settlers' effects, quarantine regulations, homestead regulations, and similar information. An entirely revised edition was issued during the year, of which 15,000 copies were printed.

"Land Settlement—Canada—Where to Go for Advice" is a booklet containing the names and addresses of officials of the Dominion and Provincial Governments in Canada to whom a new settler may turn for advice concerning his settlement problems. The booklet was brought up-to-date and a new edition of 20,000 copies printed during the year.

The "Vest Pocket Booklet" is a convenient little publication of 32 pages containing a map of Canada and much information in question-and-answer form. It is distributed extensively at county fairs. An edition of 151,985 was printed for distribution in the British Isles and 154,275 for distribution in the United States.

A compilation was made of experiences of British settlers in Western Canada as related by them in a number of Canadian newspapers. This was published under the title "Winning Through," and 10,300 copies were printed for distribution in the British Isles.

In addition to the above publications completed during the year work was done on a number of others which were not completed and which, therefore, are not included in this report. These include: a new edition of the "Eastern Canada" booklet for distribution in the British Isles; a wall map of Canada for distribution in the British Isles and the United States; new editions of the Vest Pocket booklet for distribution in the British Isles and the United States; new editions of the "Canada West" booklet for distribution in the British Isles and the United States; editions in English, French, Flemish and German of a new booklet for distribution at the Antwerp Exhibition; a new edition of the "Canada West" booklet in French; a new edition of the "Descriptive Atlas of Canada" for distribution in the United States.

The publications completed by the Department during the year may be tabulated as follows:—

	Copies
Atlas of Canada—British.....	104,750
Atlas of Canada—United States.....	106,400
Boy Scout Booklet.....	15,000
Boy Settlement in Canada.....	29,000
British Family Settlement in New Brunswick.....	20,200
Calendar.....	79,150
Canada, 1930.....	12,160
Eastern Canada—British.....	100,800
Eastern Canada—United States.....	51,175
Farm Opportunities in Canada—British.....	209,950
Houseworker in Canada.....	35,000
Information for settlers.....	15,000
Land Settlement, Canada, Where to go for Advice.....	20,000
Vest Pocket Booklet—British.....	151,985
Vest Pocket Booklet—United States.....	154,275
Winning Through.....	10,300
All Publications.....	1,115,145

In addition to the above publications the Publicity Branch issued a weekly bulletin entitled "Canada Week by Week" which is distributed widely to newspaper editors and through other publicity channels. As a result of this bulletin a great amount of Canadian news is now being published in papers in the British Isles and the United States, and, to some extent, in other countries. The average weekly circulation is about 3,100 copies.

MOTION PICTURES AND PHOTOGRAPHS

The year has been a particularly active one in our motion picture work. A three-reel film showing the experiences of the new settler from the British Isles, from ocean passage to destination, with many illustrations of the agricultural life of Canada, was prepared, involving photography in many parts of the Dominion. A two-reel film showing the facilities for the accommodation of British boy settlers, illustrating the class of work they are called upon to do, using British boy migrants in the scenes at their actual and ordinary occupations, was also prepared. A one-reel film of a famous ploughing match showing methods of ploughing was prepared, as was also a one-reel film of a representative Canadian exhibition and agricultural fair. A five-reel film of representative scenes across Canada was produced from negatives already on hand at the Canadian Government Motion Picture Bureau. The latter was supplied in response to a special request for a film for use in Europe; the others were all furnished for use in the British Isles.

The branch has been steadily assembling a large collection of representative Canadian photographs, which are available, not only for the publications of the department, but for editors and publishers in Canada and elsewhere. Many demands from many sources are made upon this stock of photographs. During the year a series of illustrated postcards showing mainly agricultural scenes was produced and supplied to the representatives of the department in the United States for follow-up work, and some 3,000 enlarged reproductions of Canadian scenes were made for distribution to schools in the British Isles.

NEWS AND FEATURE ARTICLES

The Publicity Branch supplies a regular service of news to editors and news editors in the United States by means of the "Canada Week by Week" bulletin already referred to. This bulletin is also extensively used by the department's publicity connections in the United Kingdom. Clippings on file testify to the wide use which is made of this material, as well as of other special material provided upon request or as occasion may offer. During the year a circulation for this material amounting to over 165,000,000 was recorded in English language papers printed in the United States alone. This was greater than for any previous year and does not include a large volume of material used in the United States in papers printed in other languages. In some cases papers which first became interested in Canadian news through the service of this department have since established their own correspondents or their news connections in Canada. Publicity arising from such connections, is, of course, not recorded but is nevertheless the result of work initiated by the department.

During the year arrangements were advanced for an excursion of editors of leading United States farm journals through Eastern Canada in June, 1930. These visitors are members of the American Agricultural Editors' Association which in 1925 toured the western provinces, resulting in much direct publicity and in a better understanding of Western Canada's problems and the opportunities which that country affords for settlers. The excursion in 1930 will be of a similar nature covering the five eastern provinces, which were not included in the previous tour. It is being made possible by the co-operation of Canadian railways with the Department of Immigration and Colonization.

REPORT OF THE SUPERVISOR, WOMEN'S BRANCH, MISS M. V. BURNHAM

The report of the fiscal year ended March 31, 1930, shows an increase in the work both in the British Isles and in Canada. The following gives a brief outline of what is done by this branch. The statement of arrival of houseworkers by racial origins shows an increase in British of 923 over the previous year.

IN THE BRITISH ISLES

In the British Isles the department has eight Canadian women officers who work under the immediate direction of the agents in the following centres: London, Liverpool, York, Glasgow, and Belfast. Their duties are to interview all women who call at the offices for information, to give lectures as required, to hold interviews in the steamship offices as requested by the various companies. During the past year the women officers interviewed all women coming out under the Family Reunion Scheme, also the majority of the girls who applied for assistance under the Empire Settlement Scheme. A total of 4,574 cases were approved for loans under the Scheme during the past year.

Women paying full fare were not required to be interviewed by officers of the department unless they wished to be placed through Canadian hostels and receive free accommodation on arrival, medical inspection in the British Isles and civil inspection at the port of arrival being all that was necessary. This arrangement works out fairly satisfactorily when there is plenty of employment.

The Women's Branch of the Oversea Settlement Department, known as the "Society for the Oversea Settlement of British Women," works in close co-operation with the department in the British Isles.

In 1923 the Empire Settlement Scheme came into force, and since that period approximately 22,960 girls have come out as domestics receiving passage assistance. At first this took the form of a full passage loan. In 1926 the cash of passage to the migrant was reduced to £3 ocean rate. In 1927 the ocean rate was further reduced to £2.

Canada is not the only country seeking domestics in the British Isles. Empire Settlement passage assistance is extended to those wishing to go to Australia and New Zealand, the former giving a free passage and the latter a free passage and £2 landing money.

BRITISH TRAINING HOSTELS

Owing to the fact that the demand in the Dominion of Canada for houseworkers was very great, and to the fact that there were so many inexperienced girls applying for assistance, it was considered advisable by the British authorities to have training hostels started in the British Isles. A short course, therefore, of six to twelve weeks was arranged, as a testing and training period, to determine the suitability of the applicant for overseas domestic work.

In 1929 training hostels for free training in domestic work for young women wishing to proceed overseas were opened at Cardiff, Newcastle-on-Tyne, Millersneuk, near Glasgow, and London and later at Market Harborough. In these hostels girls are trained for Canada, Australia and New Zealand. Grants of 75 per cent are provided through the Ministry of Labour and the Oversea Settlement Department, the latter being responsible for the general administration and policy through the Women's Branch of the Society for the Oversea Settlement of British Women.

The Canadian contribution of \$20 per head was made towards the training of girls who proceeded to certain provinces co-operating in the scheme. No contribution was made to Market Harborough Training Hostel owing to the falling off in Canada of the demand for inexperienced domestics in the spring of 1930.

At the end of March, 1930, 241 domestic trainees had arrived, and 83 per cent were satisfactorily settled. The different problems illustrated that greater care must be exercised if this type of domestic was to be absorbed, and the matter was discussed with the Hostel Committees which are now all working to that end, and it is expected that there will be a higher percentage of satisfactory placements during next year. The selection during the past year was made by the Canadian women officers, one woman on our staff being appointed to confer with the Society for the Oversea Settlement of British Women and the Hostel Committees in matters relating to training, selection, etc.

IN CANADA

A Canadian woman officer meets every ship that lands at Halifax, St. John, and Quebec. She goes on board and confers with the steamship conductress to ascertain what special assistance is required. The steamship conductress disembarks when the ship lands and remains with the Canadian woman officer until all the unaccompanied women have passed through inspection. If any difficulty arises the new arrivals know that they have someone to turn to. The steamship conductress, therefore, performs an important work and the girls are given confidence when they see her with the woman officer as they pass through.

The woman officer's duties include the supervision of train conductresses, and she is a member of all boards of inquiry at the port on unaccompanied women.

The following statistics give an idea of the volume of this work:—

—	Ships met	Conducted parties	Special cars arranged for	Unaccompanied women with children		Children travelling alone
				British	Foreign	
Fiscal year 1929-30.....	489	423	640	18,638	22,387	436
Fiscal year 1928-29.....	482	396	374	13,282	17,777	446
Increase.....	7	27	266	5,356	4,610	10 decrease

The number of children travelling alone does not include juvenile parties, but refers to children joining parents or relatives, for whose safe delivery the railroad authorities are held responsible, the train conductresses giving assistance.

On arrival at the ports passengers undergo civil inspection, and arrangements are made with the railroad companies by the Woman Officer for special cars for parties of unaccompanied women.

In the Immigration building at the port the Red Cross Society has been allotted space to be used as a nursery where the incoming settlers can take their children to rest between the time of arrival and the departure of the train. During the year, 25,420 infants and children and 19,583 mothers were cared for. The nursery is a haven of rest at the port for the babies, and is appreciated by their grateful parents. The value of the work done by this organization can scarcely be overestimated. The Red Cross nurse co-operates with the Women's Branch and gives the train conductress any information which may assist her in looking after the welfare of the newcomers on the train.

The Imperial Order Daughters of the Empire manage a post office in the Immigration building for the convenience of the travellers and assist in the Red Cross Nursery as required.

Passengers waiting for their trains are also assisted by workers connected with the various churches and voluntary societies such as the Y.W.C.A.

IMMIGRATION CONDUCTRESSES

In the spring of 1929 the department employed thirteen women as conductresses for the trains which left the ports with new settlers. In the early spring of 1930 this number was reduced to nine, owing to the anticipated falling off in numbers of arrivals. It is the duty of these conductresses to co-operate with the train officials in loading the trains at the ports, and to travel on the trains giving care to the unaccompanied women and children as far inland as is deemed necessary. They give first aid to the sick, help the tired mothers, and look after the general welfare of the settlers. It is difficult to estimate the value of this work in dollars and cents. The journey in Canada is long, conditions on the trains strange, the money is different, and the general method of travel puzzling to the new arrival. The mothers through fatigue sometimes become discouraged, and it is at this stage that the conductress is able to cheer the weary, assist the sick, and give advice to the young adventuresome spirits. Since 1926 each conductress has been equipped with a tea kettle for use on the stoves in colonist cars, so that there may be boiling water ready to make tea and for the babies' bottles and sometimes baths.

The conductresses' duties during the past year have been made increasingly hard by the difficulty they have experienced in looking after the domestics from Southern Europe moving under the Railroad Agreement and destined to Winnipeg for placement. The greatest vigilance has been necessary, day and night, by railroad officials and conductresses to guard these girls to their destination. Foreign girls have at times jumped from the windows of the train, not wishing to proceed to their destination. These girls are liable to leave without a moment's warning, so that constant supervision is essential.

The following extract illustrates some of the difficulties:—

"M.....B.....gave considerable trouble and her actions nearly resulted in an accident. She raised the floor door of the car and was slipping under the closed outside door when she was caught and lifted back by her shoulders into the car. Had she been allowed to slip through she would have been struck by the train which was passing and likely killed."

"Mrs. K.....B.....travelling with husband to.....gave birth to a daughter at 5 a.m. March 20. At 2 o'clock her husband called the conductress stating his wife was ill. When conductress saw that Mrs. B.....was about to be confined she had a conductor wire ahead for a doctor at the first stop. The patient was made as comfortable as possible and shortly after the doctor arrived, the baby was born. The patient continued her journey and was brought to Winnipeg, where an ambulance met the train, taking them to the hospital."

"The conductor on the train from Winnipeg to Saskatoon about 10 a.m. asked me to come and see a sick woman. I saw that she was in labour and called a doctor. The doctor, not thinking confinement imminent left the necessary drugs with the conductress, who is a trained nurse and who was able to deliver the woman as the baby was born before they reached the next station."

The necessity of having trained nurses, if possible, or older women with experience, on these trains is shown by these and other cases.

The Travellers' Aid at all the stations does excellent work.

STATEMENT OF HOUSEWORKERS BY RACIAL ORIGINS FOR THE FISCAL YEAR

Arabian.....	2	Jugo-Slav.....	95
Armenian.....	2	Lettish.....	16
Austrian.....	73	Lithuanian.....	203
Belgian.....	22	Magyar.....	316
Bohemian.....	2	Maltese.....	3
British—		Moravian.....	3
English.....	3,107	Negro.....	152
Irish.....	1,860	Norwegian.....	356
Scotch.....	3,320	Polish.....	1,014
Welsh.....	206	Portuguese.....	4
Bulgarian.....	14	Roumanian.....	31
Croatian.....	37	Russian.....	71
Czech.....	46	Ruthenian.....	1,825
Danish.....	368	Serbian.....	21
Dutch.....	121	Slovak.....	253
Estonian.....	22	Spanish.....	1
Finnish.....	1,686	Swedish.....	378
French.....	47	Swiss.....	66
German.....	1,588	Syrian.....	8
Greek.....	67	Turkish.....	1
Hebrew.....	647		
Italian.....	59	Total.....	18,113

METHOD OF DISTRIBUTION

To British women seeking domestic employment the department allows twenty-four to forty-eight hours' free accommodation, in the following centres:—

Nova Scotia—

Halifax—Canadian Women's Hostel and Sisters of Service Hostel.

New Brunswick—

St. John—Y.W.C.A., and Rosary Hall.

Quebec—

Montreal—Canadian Women's Hostel and Catholic Women's League Hostel.

Ontario—

Ottawa—Y.W.C.A., Rosary Hall and King's Daughters' Guild.

Toronto—Canadian Women's Hostel and Catholic Women's League Hostel.

Kingston—Y.W.C.A.

Hamilton—Y.W.C.A.

London—Y.W.C.A.

Manitoba—

Winnipeg—Canadian Women's Hostel and Catholic Women's League Hostel.

Saskatchewan—

Regina—Canadian Women's Hostel.

Alberta—

Calgary—Canadian Women's Hostel.

Edmonton—Y.W.C.A., Catholic Women's League Hostel and Church of England Hostel.

British Columbia—

Vancouver—Y.W.C.A.

Victoria—Y.W.C.A.

Free accommodation for twenty-four to forty-eight hours is also given at Salvation Army Hostels in several centres in the different provinces.

British domestics are placed in work by the Provincial Employment Bureau in most of the centres. In Montreal, however, the Women's Hostel does most of the placing. In Hamilton, the Dominion immigration agent also places domestics. In Calgary, the Women's Hostel superintendent gives special attention to this branch of the work.

With reference to the foreign domestics, those from Central Europe move under what is known as the Railroad Agreement and are destined to Division Commissioner Gelley to be placed in situations which have been previously listed by the railroad companies. The largest number of the foreign group came from Finland and the majority of these have settled in the provinces of Quebec and Ontario, Montreal and Toronto being the chief centres.

The admission of foreign domestics is carefully watched by the department, and the necessary check applied if there is any lack of employment. Owing to the falling off in the demand for inexperienced domestic labour in Canada, it is anticipated that there will be a falling off in the number of foreign domestics seeking admission to the Dominion.

EMPIRE SETTLEMENT SCHEME—TOTAL ARRIVAL OF HOUSE- WORKERS RECEIVING ASSISTED PASSAGE— FISCAL YEAR 1929-30

Province	Nominations		Trainees	Ontario Gov- ernment	Salvation Army	Totals
	Direct	Bulk				
Prince Edward Island.....	2					2
New Brunswick.....	12	8				21
Nova Scotia.....	25	9			1	34
Quebec.....	119	423			9	551
Ontario.....	432	1,127	181	624	238	2,602
Manitoba.....	58	135	13		14	220
Saskatchewan.....	108	277	11		1	397
Alberta.....	66	194	21			281
British Columbia.....	95	56			38	189
Total.....	917	2,229	226	624	301	4,297

The number (4,574) mentioned at the beginning of this report refers to those interviewed during the fiscal year. The above statement is of arrivals during that period, hence the apparent discrepancy in numbers.

Since the beginning of the Empire Settlement Scheme in 1923, approximately 22,960 British girls have been assisted for domestic work in Canada. The number required each year is ascertained by the department by consultation with the provincial Governments and the Employment Service. The girls coming under this Scheme are under the special supervision of the department, and the names are listed in fifteen different centres where there are Dominion immigration officers. Quarterly reports are received by the supervisor of problem cases which arise. There are Women Investigating Officers attached to the following offices: Montreal, Ottawa, Toronto and Winnipeg. At Halifax, St. John and Quebec the women officers act in that capacity, and the conductresses frequently make investigations as required.

The majority of the girls have settled in the cities of Toronto and Montreal. In the former there are three women officers for the department, and in Montreal two women officers. The following report gives in tabulated form an idea of the work done in these centres:—

Toronto	
Investigations.....	2,586
Interviews.....	3,667
Letters received.....	12,885
Letters sent.....	13,877
Telephone calls.....	8,042
Major problems.....	337
Minor problems.....	872

Montreal	
Investigations.....	958
Interviews.....	1,995
Letters written.....	4,312
Trains met.....	416
Detentions met.....	57
Boats met.....	156
Major problems.....	96
Minor problems.....	361

IMMIGRATION AND COLONIZATION

Taking all the reports from the fifteen centres, during the past fiscal year there have been 543 major problems, such as illegitimacy, immorality and ill health. This does not refer to girls who came out in any one year but in all years. Since 1926, 15,009 girls came in under the Empire Settlement Scheme. The present standing of the problems of 1929-30 is as follows:—

Cases still active.....	264
Deported.....	106
Being re-established.....	90
Married.....	42
Returned home otherwise than by deportation.....	28
Cases regarded as closed.....	11
Died.....	2

In addition to the above there were 1,600 minor problems due mainly to inexperience, desire to change places, unsettled character and illness.

The department is assisted in problem cases by various welfare organizations and Social Service Departments. In the care of the unmarried mother and child, in Toronto the Infants' Home and Catholic Welfare Bureau must be mentioned with appreciation, and in Montreal the Women's Directory and the Society for the Protection of Women and Children. The trained workers of these organizations work in co-operation with the department. As far as possible each girl who has become a problem in the community is given the benefit of intelligent and efficient advice so that if possible she may become re-established.

CANADIAN WOMEN'S HOSTELS

These hostels are in receipt of grants from the Dominion Government and usually from Provincial Governments, are undenominational, and under local management; the committees being comprised of women representing women's organizations in each centre. The hostels are situated in the following centres: Halifax, Montreal, Toronto, Winnipeg, Regina and Calgary. Monthly reports are made by the superintendents to the supervisor at Ottawa. The department pays for twenty-four to forty-eight hours free accommodation for all house-workers immediately after their arrival in Canada. These hostels are used as clubs by the girls, and the personality of the superintendent is a great factor in the success of each hostel.

In Toronto where so many of our Empire Settlement girls are located, the hostel arranges lectures and entertainments.

Our records show that during the year 2,720 girls registered at the hostels on arrival in Canada. Of this number 1,686 were registered at the Toronto Hostel. In Toronto the hostel received and distributed during the fiscal year, 21,710 letters an increase of 6,039 over the previous year. This heavy mail indicates that the hostel is being used by a great many girls.

In Montreal the superintendent receives those destined to other centres who are taken to the hostel to rest while waiting for a change of trains. Also, the superintendent does the placing of domestic destined there.

CO-OPERATION WITH THE DEPARTMENT OF HEALTH

This branch continues to forward to Dr. Helen MacMurchy, Chief, Division of Child Welfare, Department of Health, the names of all women who come to this country to be married. The number during the past year was 571. In addition, the names of all women coming out under the Family Reunion Scheme to join husbands, were sent in, and in this way women far from home and friends are put in touch with someone who can at any time give them useful information and advice.

THE UNITED SERVICES FUND

Women in Canada who served during the Great War in the Women's Auxiliary Army Corps, Queen Mary's Auxiliary Army Corps, Women's Royal Air Force and Women's Royal Navy Service, still benefit under the United Services Benevolent Fund. The supervisor receives money as required from the headquarters in London, England, and looks into the merits of each case applying for financial assistance. This year thirteen women received assistance.

SOCIETY FOR OVERSEA SETTLEMENT OF BRITISH WOMEN

The Society for the Oversea Settlement of British Women is recognized as the Women's Branch of the Oversea Settlement Department, and is representative of all the organizations in the British Isles connected with the emigration of women.

During the fiscal year 1929-30, seven parties were sent out by this organization. These parties were specially conducted on the steamships, and also on the trains in Canada.

During the year 278 cases were referred to the Department of women and children in Great Britain wishing to come out to Canada to join the husband and father. Also 118 families, namely, 112 women and 336 children, arrived with S.O.S.B.W. loans. In 59 cases the families were able to raise their own passage money, and did not require financial assistance, but the investigation was completed in order to ascertain whether the settlement arrangements in Canada were satisfactory.

The society reports show that they made arrangements during the calendar year 1929 for the reception of 130 cases of women deported from Canada. The S.O.S.B.W. work in co-operation with the Travellers' Aid, National Vigilance Association, the Girls' Help Society, and local social organizations, and in this way deported women have been assisted. This welfare work is important, and the organizations in Canada who have assisted in looking after the girls are glad to know that further care is given in Great Britain.

Miss Franklin, the Secretary of the S.O.S.B.W., came to Canada on an official visit in September, 1929, to look into opportunities for British women in the Dominion. Opportunities were afforded Miss Franklin to study in detail the work done by the Women's Branch, Hostels, social organizations, etc. Miss Franklin travelled from the Atlantic to the Pacific and was untiring in her efforts to learn as much as possible of local conditions throughout Canada. She conferred with the supervisor on many occasions to discuss the settlement of women in this country, and gave numerous addresses.

CANADIAN COUNCIL OF IMMIGRATION OF WOMEN

The Executive Committee of the Canadian Council of Immigration of Women met Miss Franklin in Ottawa in October, 1929, to see if the organizations could be of any assistance to her while she was in Canada, and it was decided to call a general meeting of the council to confer with Miss Franklin before she returned. This meeting was held in Ottawa on November 29 and 30, 1929.

On the Canadian Council of Immigration of Women are represented the following national organizations:—

- Canadian Council of Agriculture.
- Canadian Council of Child Welfare.
- Canadian National Committee on Mental Hygiene.
- Canadian Red Cross Society.
- Canadian Legion of the British Empire Service League.
- Catholic Women's League of Canada.

Federated Women's Institutes of Canada.
 Imperial Order of the Daughters of the Empire.
 National Council of Women.
 Social Service Council of Canada.
 Trades and Labour Congress of Canada.
 Women's Auxiliary to the Missionary Society of the Church of England.
 Women's Christian Temperance Union.
 Women's Missionary Society of the United Church of Canada.
 Women's Missionary Society of the Presbyterian Church of Canada.
 Young Women's Christian Association.

APPRECIATION OF THE WORK DONE BY THOSE INTERESTED IN IMMIGRATION

It is impossible in this report to record all that is done in immigration work by the various organizations in Canada. At the Atlantic ocean ports the following religious bodies have representatives to assist the newly arrived settlers.—The Church of England, the Roman Catholic Church, the United Church of Canada, the Presbyterian Church and Salvation Army.

The following societies also have workers at the port, in addition to the Red Cross Society mentioned earlier in this report: the Bible Society, the Imperial Order of the Daughters of the Empire, the Jewish Immigrant Aid Society, the Sisters of Service, and the Young Women's Christian Association. The railway station work done by the Imperial Order of the Daughters of the Empire at Montreal, is of great assistance to the travellers.

Social service work in the Dominion is well organized and the Department receives the co-operation of the welfare agencies in all centres. This is specially appreciated in connection with the Young girls who come to Canada for housework and are far from home and relatives.

REPORT OF THE SUPERVISOR OF JUVENILE IMMIGRATION, G. BOGUE SMART

In presenting my report on the activities of this branch of the department for the past year, I am pleased to record a satisfactory year's work, the extent of which exceeded that of the previous year. A total of 17,230 applications were received at the headquarters of the societies during the past fiscal year, and the number of juveniles who migrated during the same period was 4,281. These young people came from England, Wales, Scotland and Ireland, the number from England predominating.

The migration of juveniles from Great Britain to Canada is the pioneer of organized immigration from the British Isles to any of the outposts of the Empire. The first party of juveniles to leave Great Britain arrived at the port of Quebec sixty-one years ago. Strange as it may seem, however, the real economic importance of the movement was for a great many years unappreciated. The movement received very little attention beyond casual and brief reference in the reports of immigration agents at the ports of arrival, which appeared in the annual departmental blue books. Since the Great War however, British juvenile migration has been more fully recognized.

The majority remain in agricultural employment; others who are inclined to other avenues of industry than farming, have become successful in other walks of life. The number who have not become good Canadians is relatively small.

Under the provisions of the Oversea Settlement Act and the agreement between the Government of Great Britain and the Government of Canada in

connection therewith the Juvenile Migration Movement to Canada appertains to boys between 14 and 19, and girls between 14 and 17 when migrating under the auspices of a provincial or an approved society.

The following are the conditions governing the migration of juveniles to Canada:—

(1) The Director of Emigration for Canada in London is furnished with particulars of each juvenile whom the organizations propose for migration to Canada.

(2) The acceptance of the juvenile is conditional on

(a) his ability to pass medical examination as to his mental and physical soundness before leaving the mother's country;

(b) he must be able to read and write;

(c) on arrival at a Canadian port each juvenile is subject to the Law and regulations governing admission of immigrants to Canada.

(3) Each society must provide a suitably equipped Receiving and Distributing Home or centre, to which the juveniles are to be conducted on arrival, and from which they will go to situations provided for them by the society and to which they may return pending replacement, or for any other reason.

(4) The organization must assume responsibility for placing juveniles in employment in suitable farm situations in the case of boys, and in household work in rural or urban homes in the case of girls. In this connection all recommendations and other documents having to do with each situation in which a boy or girl is placed, must be kept on file in the Receiving Home, and be available for inspection.

(5) The juveniles are to be placed under a written agreement in which the wage to be paid, and other conditions of employment, must be specified.

(6) The society is required to undertake and maintain a systematic supervision of each juvenile. Written reports on employment of the juvenile and the situation, and the conditions as found by the society's visitors are kept at the Receiving and Distributing Home, and are available for inspection by an officer of the Department of Immigration and Colonization whenever required. A staff of qualified visitors responsible directly to the society must be employed for this work.

(7) The society must furnish the department with a list of the names and ages of the juveniles, together with the names and post office addresses of their employers, and promptly advise the department in the case of change of employer, whenever such occurs.

Employers are not permitted to transfer boys to another person without the authority of the agency by whom the boy was placed. When a boy leaves his situation it is the duty of the employer to notify the society at once and the latter to inform the department.

Inspections made by this Branch at the various Receiving Homes or Hostels, and interviews with employers during the year just ended, show that in the majority of cases, the juveniles are well settled, in good homes and situations, and are generally giving satisfactory service.

During the year 6,442 transfers or changes of situation occurred; this process is of course inevitable, bearing in mind the thousands of boys and girls under supervision. These changes or shiftings were in the main due to the completion of yearly indentures, disagreement as to wage demanded, dissatisfaction on the part of the boy or his employer, injudicious treatment and general unsuitability of situation.

IMMIGRATION AND COLONIZATION

RECEIVING HOMES, HOSTELS AND TRAINING FARMS

The establishment of these centres in Canada is an important and essential feature of the juvenile immigration movement. The boys and girls, while not encouraged to return at mere caprice, have a right to seek the protection and hospitality of these institutions when in need of help or shelter.

It will be noted that in the twelve months from April 1, 1929, to the close of the fiscal year, the number of juveniles migrating exceeded the total arrivals during the previous year, as will be seen by the following comparative statement:—

Society	1927-28	1928-29	1929-30
Armenian.....	14		
Dr. Barnardo's Homes.....	108	141	131
British Immigration and Colonization Association.....	751	1,176	1,699
Catholic Emigration Association.....	238	314	386
The Church Army.....	180	210	180
Church of England Waifs and Strays Society.....	76	90	102
Church of England Council of Empire Settlement.....	120	182	279
Dr. Cossar.....	65	129	132
Captain Oliver Hind, The Dakeyne Farm.....	19	11	7
Mr. J. W. C. Fegan.....	44	42	38
Sir. J. T. Middlemore.....	12	23	5
National Children's Home and Orphanage.....	34	82	60
The Quarrier Home.....	66	43	35
Salvation Army.....	103	203	342
United Church of Canada.....		228	489
Unaccompanied.....	240	142	396
Totals.....	2,070	3,036	4,281

Table showing distribution by provinces of juveniles who arrived during fiscal year.

Ontario.....	3,188	Manitoba.....	144
Quebec.....	376	Saskatchewan.....	246
Nova Scotia.....	18	Alberta.....	115
New Brunswick.....	133	British Columbia.....	61

The following table shows the number of juveniles migrated to Canada by the principal organizations in Great Britain during the past thirty years were as follows:—

Fiscal Year	Children immigrated	Fiscal Year	Children immigrated
1900-1.....	977	1915-16.....	821
1901-2.....	1,540	1916-17.....	251
1902-3.....	1,979	1917-18.....	
1903-4.....	2,213	1918-19.....	
1904-5.....	2,808	1919-20.....	155
1905-6.....	3,264	1920-21.....	1,426
1906-7.....	1,455	1921-22.....	1,211
1907-8.....	2,375	1922-23.....	1,184
1908-9.....	2,424	1923-24.....	2,080
1909-10.....	2,422	1924-25.....	2,000
1910-11.....	2,524	1925-26.....	1,862
1911-12.....	2,689	1926-27.....	1,741
1912-13.....	2,642	1927-28.....	2,070
1913-14.....	2,318	1928-29.....	3,036
1914-15.....	1,799	1929-30.....	4,281

These statistics include only juveniles who migrated under the auspices of the approved societies already mentioned.

Table showing the number of children and juveniles who have been brought to Canada by the principal societies and agencies since the inauguration of the movement:—

	Year	Children immigrated
Miss Macpherson and Mrs. Birt, London and Liverpool (Canadian Headquarters, Marchmont Home, Belleville, Ontario).....	1868 to 1926	14,578
Miss Rye and Church of England, Niagara-on-Lake, and Toronto, Ont., and Sherbrooke, P.Q.....	1868 to 1930	4,410
Mr. (later) Sir. J. T. Middlemore, Fairview, Halifax, N.S.....	1873 to 1930	5,137
The National Children's Home and Orphanage (formerly Dr. T. Bowman Stephenson) Hamilton, Ont.....	1873 to 1930	3,348
Mrs. Bilbrough-Wallace (Marchmont Home), Belleville, Ont.....	1878 to 1915	5,529
Cardinal Manning (Ottawa and Montreal).....	1880 to 1888	1,403
Dr. Barnardo, Toronto, Ont., and Winnipeg, Man.....	1882 to 1930	27,062
Mr. J. W. C. Fegan, Toronto, Ont.....	1884 to 1930	3,160
Mr. Wm. Quarrier, Brockville, Ont.....	1890 to 1930	4,418
The Catholic Emigration Association and amalgamated societies, St. George's Home, Ottawa, Ont.....	1897 to 1930	7,937
The Salvation Army.....	1905 to 1930	3,694
Dr. Cossar, Lower Gaagetown, N.B.....	1910 to 1920	972
Captain Oliver Hind, The Dakeyne Farm, Falmouth (near Windsor), N.S....	1913 to 1930	128
British Immigration Aid and Colonization Association, Montreal, P.Q.....	1923 to 1930	4,584
The Church Army, Winnipeg, Man.....	1925 to 1930	849
Church of England Council of Empire Settlement, Edmonton, Alta., Indian Head and Melfort, Sask.....	1926 to 1930	600
United Church of Canada, Norval, Ontario.....	1929 to 1930	717
Minor Agencies.....	1897 to 1930	6,490
Total.....		95,016

COMPARATIVE Statement for Fiscal Years 1927-28 to 1929-30, inclusive

	Fiscal Year		
	1927-28	1928-29	1929-30
Inspections.....	5,807	6,134	7,261
Visits (other than inspections).....	1,329	1,892	2,647
Under supervision April 1.....	5,818	5,585	6,247
Added to supervision list (new arrivals).....	2,070	3,036	4,281
Added to supervision list (reinstated).....	20	9	3
Total number under supervision in fiscal year.....	7,908	8,630	10,531
Removed from supervision (inspections completed during fiscal year).....	2,323	2,383	2,330
Under supervision March 31 of fiscal year.....	5,585	6,247	8,201

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF INDIAN AFFAIRS

FOR THE

YEAR ENDED MARCH 31

1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., etc., etc., Governor General and Commander
in Chief of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Indian Affairs for the fiscal year ended March 31, 1930.

Respectfully submitted,

THOMAS G. MURPHY,
Superintendent General of Indian Affairs.

OTTAWA.

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PART I

REPORT

OF THE

DEPUTY SUPERINTENDENT GENERAL OF
INDIAN AFFAIRS

FOR THE YEAR ENDED MARCH 31, 1930

REPORT OF THE DEPUTY SUPERINTENDENT GENERAL

OTTAWA, December 18, 1930.

HON. THOMAS G. MURPHY,
Superintendent General of Indian Affairs,
Ottawa.

SIR,—I have the honour to submit the report of the Department of Indian Affairs for the year ended March 31, 1930.

In the following pages will be found a brief outline of the more important administrative activities of the department during the period under review.

The Indians in common with other sections of the population have felt the effects of the prevailing lack of employment and low prices for agricultural products. The department, however, has taken all possible precautions for the prevention of hardship and no genuine appeal for relief is overlooked. The needs of the hunting Indians whose problem was treated at some length in last year's Report, continue to engage the closest attention.

FARMING AND STOCKRAISING AMONG THE INDIANS OF THE PRAIRIE PROVINCES

FARMING

In the spring of 1930 the Indians in the three Prairie provinces sowed 38,156 acres of wheat, 24,759 acres oats, 5,442 acres barley, and 2,918 acres of rye, as well as several hundred acres of gardens. They summer-fallowed approximately 32,273 acres of land, and at the time of writing they have about 112,000 acres under cultivation. The spring gave every indication of a good crop, but it was not long before reports reached the department that the blowing of soil had done considerable damage in certain parts, in fact at some points this blowing entirely ruined the crop. This was followed by rust, and the crop at other points, which had not been damaged by blowing, was reduced about 30 per cent from this cause. Sawfly and cutworm also injured the crops, but notwithstanding all this the Indians have reaped about 75 per cent of a normal year's crop. The price of threshing, and the cost of twine have remained the same as last year when prices were good. A large amount of summer-fallowing—32,273 acres—has been done this year, and the work on this land is equal to that done by the white farmers. While there is the weed menace to contend with, the situation on many of the reserves would not appear to be so bad as in the white settlements. Every effort is being made by the department to control the weeds. The breaking of new land might be approximately 8,000 acres; the exact figures are not known, but a large acreage of land has been broken this year, and the work is well done. In most cases this work was performed under adverse conditions, as the season has been very dry, making it very difficult to plow new land.

A large quantity of hay has been put up this year, and a shortage of feed is not anticipated. All reserves report an abundance of hay, and great care has been taken to see that it was put up in good time. At the time of writing 90 per cent of the hay is in stack. This is a very satisfactory state of affairs. The Indians have made a special effort, and great credit is due them. The quality of the hay this year will be better than for many years, there being no rain to speak of during the haying season.

STOCKRAISING

The live stock on all reserves is reported to be in good shape, and according to our records dated June 30, there are 22,385 head of cattle of all classes owned by Indians. There will probably be a slight increase in this number when the calves are finally counted. The Indians provide for all their own beef requirements. The day of buying beef from outsiders to feed the Indians has passed, and the beef consumed by the Indians in the three provinces is valued at approximately \$200,000. In addition to this our records show that they have sold between \$160,000 and \$170,000 worth of beef to outside buyers. This is a very satisfactory showing. The Department is doing its best to increase this branch of the work, as there is excellent pasture land on many of the reserves. There are reserves, however, where the cattle cannot be increased to any great extent owing to the fact that the amount of hay is limited.

Many of the Indians are now milking cows, and in some cases selling cream and butter. The number engaged in this work has increased during the last year.

The department has built about two thousand houses for Indians in the last three years on the various reserves in these provinces. Five hundred houses have been erected this year. These are of hewn logs, and many of them are placed on cement foundations. They have a door and from four to six windows and a second storey; certainly a great improvement over the old style of home. The whole situation in Manitoba and Saskatchewan has changed with regard to the condition of the Indian homes. These homes, as a rule are kept fairly clean; practically all are whitewashed once a year and some of them twice a year.

INDIAN HEALTH SUPERVISION

The Indians during the past year have been relatively free from the more common kinds of disease. Measles was prevalent along the Pacific coast in the autumn of 1929, and spread to the interior to some extent. Smallpox appeared in one or two places, but gained no headway. There was no outbreak of influenza.

HOSPITALS AND NURSING STATIONS

No new hospitals have been erected by the department during the course of the year. Assistance has been given, however, in erecting some hospitals in remote places where the Indians form such a substantial part of the population that the department finds it necessary to assume a portion of the capital cost of establishing or rebuilding hospital institutions.

A nursing station has been built at the Fisher River agency in Manitoba. This is a residence for a public health nurse, and has no regular hospital accommodation except a bed for an emergency case. The department hopes to extend this type of activity, and is now establishing another similar unit at Hobbema, Alberta. The advantages of the nursing station unit are obvious. It is relatively inexpensive, and so may be provided for a larger number of reserves. It enables a nurse to reside at the reserve, where her work and influence may be continuous. It provides a centre where the sick may come to see the doctor at appointed times, and where the doctor may have the assistance of the nurse and the equipment of the station. The nurse is not confined to an institution caring for serious cases who require the treatment afforded by a completely equipped hospital, or, as is sometimes the case, chronic cases who can quite well be treated at home with the advice and occasional visits of the nurse and doctor. Most important of all, it provides a service to the mothers of growing children, who can profit by frequent instruction.

PUBLIC HEALTH NURSING SERVICE

Important additions have been made to the staff of public health or traveling nurses. Four such nurses have been appointed in British Columbia, two in Ontario, and one in New Brunswick. The standard of qualification for this and other classes of nurses has been raised, and the compensation increased, and the department is now in a position to attract the very best nurses to its service. Only those having a university training in public health are eligible for appointment to the highest grade. Particular attention has been devoted during the year to this phase of health work, and a study has been made of the methods of provincial and voluntary nursing organizations. The Victorian Order of Nurses very kindly lent the assistance of one of its field supervisors for a survey of the reserve nursing problem in British Columbia and Ontario, and for the initial instruction of some newly appointed departmental nurses. Very encouraging reports are being received of the increased efficiency of the nurses, and of the benefits they are carrying to reserves to which new nurses have been assigned.

PART-TIME DOCTORS AND LOCAL HOSPITAL SERVICES

There have been no notable changes or extensions in these services during the year. The department employs the available doctor and patronizes the local hospital to the extent of the requirements in each locality. Specialists' services are afforded for cases beyond the skill or facilities of the local physician. It is noted that there is a steady increase in the demand on the part of the Indians for modern medical treatment, and in the interest displayed by part-time doctors in their Indian work. The department finds it constantly necessary to revise the salaries of these doctors to correspond with their increasing services.

FULL-TIME DOCTORS AND DEPARTMENTAL HOSPITALS

A highly qualified doctor, who also acts as Indian agent, has been stationed at Moose Factory, on James bay. Hitherto the only medical service available in that area has been the annual visit of a doctor with the treaty paying officer, and a small hospital at Fort Albany, conducted by a religious order. The doctor has found it possible to perform some major surgical operations with very small facilities, and his visits may be expected to prove of very welcome assistance to the sisters at their remote station. The approach of the railway to Moose Factory holds out a prospect of substantially increasing medical facilities on the bay.

The departmental hospitals at the Six Nations reserve in Ontario and the Blackfoot reserve in Alberta have been patronized by the Indians to such an extent that it has been found necessary to provide more space. This is being done by erecting nurses' residences, thereby adding to the comfort of the staff, and making their rooms in the hospitals available for patients. The new hospital at the Blood reserve is operating with the greatest satisfaction.

A separate wing for Indian patients has been erected at Cochrane, Ont. It is conducted by the Lady Minto Hospital, the department paying the salaries of part of the staff and a daily per capita grant to the hospital.

There is a remarkable increase in the amount of medical attention demanded by the Indians of northern Ontario. At Cochrane, Chapleau, White River, Armstrong, and many other points they are reporting for treatment in large numbers.

TUBERCULOSIS

It is regretted that it is not possible to report more progress in combatting this the most important of diseases among Indians. The necessity far exceeds both the facilities and the funds available. There are several reserves where the number of infectious cases is so small that the disease might be stamped out if it were possible to devote the whole of the appropriation for this purpose to

these reserves. But equally strong appeals for help come from almost every reserve. At the present time it is being found necessary to refuse applications for sanatorium treatment due to lack of funds for maintenance. The department appeals to the interest of Parliament for funds with which additional personnel and facilities may be provided. The proper course undoubtedly is to attack the disease in its weakest places, viz., on reserves where there are small numbers of cases, and where the resistance of the Indians to it is relatively high. This will involve intensive effort, carried out by personnel of more than ordinary training and experience, and, for this reason, costly. It will also involve, in some provinces, the provision of more sanatorium accommodation. At the same time the work now being done, and which consumes all available funds, cannot with humanity be lessened.

HEALTH SUPERVISION IN SCHOOLS

The appointment of more public health nurses has afforded new facilities for the examination of school pupils, and doctors have been requested to devote more attention to this phase of their duties. As a result, there has been a great increase in dental services for the growing children, and in remedying defects such as enlarged tonsils and defective vision. It appears that the removal of diseased tonsils is an effective measure in healing and preventing scrofula or tuberculous glands.

The usual health supervision of pupils in residential schools has been carried on and these pupils have shared in the increased service referred to above.

SPECIFIC DISEASES

Venereal disease exists among Indians as among the white population. During the year under review special effort has been made to discover and bring under treatment all cases of syphilis. It has not been found that there is any cause for alarm in the situation. Many reserves do not appear to have any cases, and where the disease does exist, the affected Indians submit willingly to treatment.

A survey of certain reserves in Alberta and British Columbia is now being carried out in order to discover the incidence of certain forms of eye disease. The work is being done by a highly trained specialist. His findings will not be available for the present report.

In the early summer of 1929 an Indian boy at Fort George, on the eastern shore of James bay, was accidentally injured in a shooting accident, receiving a compound fracture of the thigh, one of the most severe injuries which can occur without causing early death. There were no facilities for his immediate removal or adequate treatment at home, and in spite of the best efforts of the local missionary, the wound became infected, and the boy seemed sure to die. News of his condition reached Ottawa only after some weeks. At the time of its receipt, the Royal Canadian Air Force flying officer who had been carrying the treating paying party in northern Ontario had just returned to Remi lake, west of Cochrane. The flying officer was instructed to try to remove the boy. He left Remi Lake on the morning of August 1, flew to Fort George, and brought his patient into Ottawa the same evening. This flight of more than 1,000 miles was carried out in bad weather and over entirely uninhabited country. The boy was placed under the care of an Ottawa specialist, and has now entirely recovered. This case is referred to because it attracted a good deal of public attention at the time.

In concluding this part of the annual report, it is desired to acknowledge the co-operation of the provincial Governments, and of other departments of the federal Government, particularly the Royal Canadian Air Force and the Royal Canadian Mounted Police.

LANDS AND TIMBER

LANDS

The general situation with respect to the administration of surrendered Indian lands was not as satisfactory during the fiscal year 1929-30 as during the previous twelve month period. This was due mainly to the widespread depression culminating in the spring of 1929, affecting adversely both the purchasing power of the public and payment of obligations previously incurred. In addition, crops on the average throughout the western provinces were greatly below expectation and prices received in many cases actually under the cost of production. It is possible that more or less similar conditions will prevail during the ensuing season. The department at all times endeavours to collect all land payments as they fall due, but it has been necessary during recent months, to adopt an exceptionally lenient attitude both in the interest of the purchasers and the various local municipalities. Notwithstanding this the department is quite confident that any arrears which may accumulate in this manner will be quickly paid up, should one or two satisfactory crop years follow, as occurred in 1927 and 1928. The western farmer is a particularly optimistic individual and so long as he remains on the land he may be considered quite solvent.

Sales of surrendered Indian lands during the year reached the substantial figure of 29,222 acres, realizing \$452,663.75, representing a very satisfactory sale price per acre. The total amount of surrendered lands as represented by current sales or available for sale is now 199,906.53 acres, in connection with which \$1,165,980.63 in principal is outstanding. New land sales and receipts therefrom were practically double that of the previous fiscal year.

The principal sales during the year involved the disposition by public auction of the Little Black Bear reserve in the province of Saskatchewan and Beaver reserve and ten smaller Indian properties in the same locality, all in the Peace River district of Alberta. The Little Black Bear reserve contained 3,696 acres and was sold for \$34,654.75, the initial cash payment amounting to \$13,007.68. The Beaver and other reserves close by contained an aggregate area of 16,116.18 acres and were sold for the very satisfactory price of \$321,868.38, the initial cash payment being \$33,359.05. The terms and conditions in connection with both these sales was a cash down payment of ten per cent, the balance to be paid in nine equal and consecutive annual instalments with interest at the rate of six per cent. A sale of lots in The Pas townsite in Manitoba was also held for which the sum of \$17,120 was realized, the initial cash payment being \$8,813. Including the latter amount, the total receipts for the year from The Pas townsite were \$30,874.89.

The amount received from the Blackfoot reserve crop shore leases during the year, was \$28,227.85. This was substantially below the amounts received during the previous two years, but the reasons for this have already been indicated.

PETROLEUM AND NATURAL GAS

The department was greatly interested during the year, in rather extensive geological and investigational work carried out by interested parties on three of the larger reserves in the province of Alberta, with a view to petroleum and natural gas development. Already some drilling operations have been carried out on the Stony reserve near Morley, but results have so far not been satisfactory. Some test drilling was done during the year on the Sarcee reserve near Calgary, for the purpose mainly of defining the underlying rock structure, but no attempt has yet been made to sink a deep well. It is possible, however, that such action may be taken in the near future. The major interest, however, has really centered in test drilling operations being conducted on the north end of the Blood reserve, not far distant from the town of Lethbridge. A consider-

able number of leases of the petroleum and natural gas rights covering portions of the Blood reserve, have already been issued by the department but the only development work so far undertaken has been carried out by a company which controls by lease a considerable area of this particular part of the reserve. A large sum of money has been expended by this company in test drilling operations, the results of which are considered most encouraging and it is expected that a deep well will be started shortly. Should this test prove successful, there is little doubt but that the Blood reserve will prove to be one of the outstanding oil fields of Western Canada. Insofar as the investigational and development phases of the situation are concerned, the department is offering every possible encouragement in the hope that the Indian owners of this reserve will eventually benefit greatly from royalties on production.

LEASES

Under the provisions of section 11 of the Regulations for the Disposal of Indian Lands leases were issued to white men at the request of Indian locatees to the number of 127, and on March 31 last there were 1,297 leases current.

LOCATION TICKETS

Location tickets, granting title under the provisions of the Indian Act, to individual owners for lands on the reserves were issued during the past year to the number of 180 and on March 31 last there were current 2,740 location tickets.

ENFRANCHISEMENT

Under the provisions of section 114 of the Indian Act there were enfranchised during the past fiscal year 23 Indians, heads of families, comprising a total of men, women and children of 45.

TIMBER

The quantity of timber cut for sale from Indian reserves in the Dominion during the 1929-30 season was about the same as the previous year. A decrease in the quantity of log timber was more than made up by an increase in ties, poles and posts.

The kinds and quantities cut were as follows:—

Pine (white).....	338,218 f.b.m.
Pine (red or Norway).....	268,005 "
Pine (yellow or bull).....	2,030,577 "
Pine (jack or banksian).....	1,478,599 "
Spruce (various).....	5,631,197 "
Hemlock (western).....	2,068,019 "
Hemlock (eastern).....	443,897 "
Cedar (red).....	436,612 "
Cedar (white).....	261,573 "
Fir (Douglas).....	3,226,414 "
Fir (balsam).....	646,539 "
Tamarac.....	343 "
Maple.....	942,288 "
Birch.....	531,600 "
Beech.....	354,950 "
Ash.....	2,786 "
Elm.....	145,025 "
Oak.....	67,476 "
Walnut.....	7,360 "
Basswood.....	30,919 "
Poplar.....	188,062 "
Cottonwood.....	140,697 "
Cordwood (mixed).....	8,925½ cords
Pulpwood.....	25,729½ "
Shingle bolts.....	284½ "
Ties.....	371,464
Poles.....	13,999
Posts.....	113,292
Piling.....	33,414 lin ft.

The total quantity of timber cut for sale, in terms of board measure feet was approximately forty-five million f.b.m., and in addition to this the Indians cut about ten million f.b.m. for building, fencing and fuel.

Sales of timber during the year were:—

Zaimoetz reserve, B.C.....	Deposit	\$1,550
Cowichan reserve Pt., B.C.....	"	500
Bucktum reserve, B.C.....	"	200
Ain reserve, B.C.....	"	300

Cash receipts were as follows:—

Licence dues and royalties.....	\$	66,064	98
Permit dues.....		17,875	55
Rentals and fees.....		2,181	50
Deposits.....		2,550	00
Payments on account.....		10,159	08
Compensation for damage to reserves.....		11,090	75
Trespass charges.....		1,559	62
Interest on over-due accounts.....		3,018	56
Fines.....			95 00
Sand and gravel royalties.....		6,203	72
Total.....	\$	120,798	76

There were 23 timber licences current on April 30, 1930, being the same number as the previous year, one having been relinquished, and one new licence issued.

Slight damage to timber on several reserves was sustained by forest fires last season, but special patrols were sent out during the hazardous season, especially in the Lake of the Woods area, and the loss of timber was by no means serious.

The destruction of timber by flooding of several reserves due to hydro-electric development is engaging the attention of the department, and compensation claims have been prepared and presented for settlement, one of which (Wabigoon reserve) has already been paid.

EDUCATION

During the year, 78 residential schools and 272 day schools were in operation, a total of 350 centres of Indian educational activity. The total enrolment was 15,743 and the average attendance 11,579—a percentage of attendance of 73.55. The enrolment for the year is the largest and the attendance the highest yet reached. Ten years ago, the average attendance was 7,649, and it is gratifying to note that the increase since that time is over 50 per cent. In Part II of this report will be found a tabular statement, showing the location and indicating the attendance at all Indian schools.

The same number of residential schools were in operation last year and the results have been very encouraging. Vocational training is possible at these boarding schools and the department continues to emphasize this important phase of the work. Mention should be made of the rapid development of technical education in British Columbia—made possible by special funds which have been provided for the purpose. In Ontario and the Prairie Provinces, emphasis is placed on farming, gardening and the care of stock.

The co-operation of the churches in the management of these residential schools was as follows:—

Roman Catholic.....	43	residential schools
Church of England.....	20	" "
United Church.....	13	" "
Presbyterian Church.....	2	" "
Total.....	78	" "

Two new day schools were established where there was promise of real usefulness. On many reserves the Indian schools now secure as good attendance and results as rural white schools. Provincial curricula for public and separate schools are followed and fully qualified teachers are engaged.

All Indian schools were regularly inspected by officers of the department. Particular attention is paid to the general management, condition and care of

property, vocational training and the health of the pupils. In addition, provincial school inspectors visited all class-rooms and reported on the academic work, except in the provinces of New Brunswick and British Columbia, where there were special Indian school inspectors.

It is with much regret that the department reports the death of the Sister Superior and 12 children when fire destroyed the main building at the Cross Lake Indian residential school, in northern Manitoba. Renewed efforts have been made in the matter of fire prevention and protection and all principals of residential schools have again been instructed to examine fire-fighting equipment and escapes and to practise fire drill regularly. Fireproof construction is now being used in all new buildings where there are children's dormitories and at all schools the Department has provided adequate fire fighting equipment and escape facilities.

New main buildings were commenced during the year at four residential schools—Brandon, Man. (Brandon); Punnichy, Sask. (Gordon's); Gleichen, Alta. (Old Sun's); Grouard, Alta. (St. Bruno's). In addition, the department assisted the respective church authorities with the reconstruction of new buildings at Beauval, Sask., Wabasca, Alta., and Providence, N.W.T. The new buildings at Alert Bay, B.C., and Kenora, Ont. (Cecilia Jeffrey), were completed and furnished during the year.

The buildings for the new Maritime Indian residential school at Shubenacadie, N.S., have also been completed and furnished. This institution is for orphan and neglected children and for those who are unable, for one reason or other, to obtain an education at the reserve day schools. It already gives promise of much usefulness to the Indians of the Maritime Provinces. At eight Indian day schools in Canada new classrooms or teachers' residences were erected.

The practice of assisting the most promising and industrious graduates of Indian schools was continued. Approximately 160 young Indian men and women were helped to continue their studies or to establish homes. Except in those Indian communities where successful farming is found, the school graduate presents a problem which is very difficult of solution. The department and the churches interested are trying new schemes and searching for better methods of helping the young people to establish themselves.

In the past, the funds of certain Indian bands were used to meet some of the costs of conducting day schools on their reserves. The year under review is the second that all expenditure has been provided by parliamentary appropriation. The program of free education is now extended to all Indians in Canada. The expenditure for Indian education for the fiscal year ended March 31, 1930, amounted to \$2,330,438.21, as follows:—

INDIAN EDUCATION VOTE—EXPENDITURE FOR YEAR 1929-20

	Day schools	Resi- dential schools	Station- ery	Tuition and assistance to ex-pupils	Miscel- laneous	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....	8,792 84	80,952 42	244 03	15,255 39	11 87	105,256 55
Prince Edward Island.....	668 00		53 63			721 63
New Brunswick.....	14,892 47		765 79	683 95	1,044 10	17,386 31
Quebec.....	72,488 75		1,763 69	4,279 90	19 60	78,551 94
Ontario.....	106,594 51	285,784 23	9,620 80	12,848 50	544 21	415,392 25
Manitoba.....	53,612 40	321,263 55	4,706 77	596 09	5,089 33	385,268 14
Saskatchewan.....	42,519 43	344,878 34	4,380 31	2,356 20	3,117 87	397,252 15
Alberta.....	3,650 78	316,222 33	4,709 68	1,674 10	515 19	326,772 08
Northwest Territories.....	2,245 25	52,103 98	436 87		49 23	54,835 33
British Columbia.....	60,509 33	462,517 45	7,536 57	948 12	1,067 50	532,578 97
Yukon.....	2,502 70	13,493 64	426 52			16,422 86
	368,476 46	1,877,215 94	34,644 66	38,642 25	11,458 90	2,330,438 21

The centenary of one of our most important schools falls during the coming year, and, as a matter of historical interest in connection with the development of the work of Indian education, the following short history of the Mohawk Institute has been prepared by the Superintendent of Indian Education:—

THE MOHAWK INSTITUTE

The first Indian residential school in Canada to complete one hundred years of continuous service is the Mohawk Institute at Brantford, Ont. It would therefore seem fitting at this anniversary to write a short history of a school, which has had an interesting past and which has been an important factor in the development of the Six Nation Indians.

The story of the Mohawk Institute would be incomplete without a brief statement concerning the organization which was responsible for its establishment and which has supported the school, without interruption, for a period of one hundred years. In 1649, in Cromwell's time, the New England Company was established by Parliament and was chartered twelve years later during the reign of Charles II. The company was an evangelical organization, interested in the natives of the British colonies in America. Its earliest efforts in Canada were in New Brunswick, when its activities were transferred from the New England States shortly after the War of Independence. In 1786, the Lieutenant-Governor and the Chief Justice of New Brunswick were appointed commissioners, along with seven other "fit persons," to carry out the aims of the company. The commissioners believed that the economic welfare of the Indian could be served only by some industrial training and, as early as 1808, General Coffin arranged for the apprenticing of several Indian boys to British settlers. Sussexvale was the principal seat of the New England Company's labours at this time. In 1822, the company discontinued this scheme and decided to trust to the example and teaching of missionaries and school teachers as a more effectual means of civilizing and evangelizing Indians.

At this time, the New England Company sought fields of labour elsewhere in what is now Canada; and, in 1827, its main attention was transferred to the Six Nation Indians on the Grand river in Upper Canada. Chief Thayendanegea (Captain Joseph Brant) had secured a site for his people on the Grand river, and in 1785 had arranged for a church and a school at the Mohawk village. The school teacher's salary was paid by the Imperial Government from the military chest. At that time the administration of Indian affairs was more military than civil in character. The chief functions of the Indian Department of the day were to get the Indians settled and to distribute presents. It was not until after Union and responsible government in 1841 that the administration of Indian affairs was placed under the Civil Secretary (1844). The school at the Mohawk Village flourished for several years, part of the time under the management of an Indian master. In 1813, likely due to the disturbances caused by the invasion of Canada, the school was closed.

John Brant, principal Chief of the Six Nations, youngest and worthy son of his father, was instrumental in focusing the attention of the New England Company on the Six Nations. He visited England in 1822, one of his requests being the establishment of an Indian school. He returned to Grand river and, in 1824, a school was started with twenty-one pupils. Two years later, he asked the company for funds to rebuild the church, erect a parsonage and other buildings and, although there is evidence that the materials for the Mohawk Village school were on the ground the same year, it was not until 1828 that the school building was ready for occupation.

Brant had asked the New England Company for a resident missionary. The Rev. John West had been sent out from England to report on conditions in the British colonies and, following his report, Capt. John Brant was made lay agent for the company and was sent funds for commencing the Grand River

work in earnest. The Rev. W. Hough was the first resident missionary. He remained only a few months and was succeeded by the Rev. R. Lugg, in 1827. The Company proceeded to establish four other schools for the Six Nation Indians.

In 1828, Rev. A. Nelles was appointed assistant missionary and was given the special care of the educational work. About 1,900 Indians were in the community when the New England Company commenced its work there and they supported it with a grant of approximately £750 per annum. The Mohawk Village was one mile from Brant's Ford, which had a white population of approximately 300.

In 1830, educational work at the Mohawk Village was extended to include a manual training school. A mechanic's shop was erected and two large rooms were occupied for teaching boys carpentering and tailoring. In addition, quarters were secured for the teaching of weaving and spinning to Indian girls. The activity was considered important enough to warrant the main attention of one of the missionaries, and the Rev. A. Nelles was placed in charge in 1831. It was not until six years later, however, when he was made chief missionary for the New England Company, that he moved his residence to the Mohawk Village. In 1834, the New England Company increased the establishment by opening residential quarters for 10 boys and 4 girls. These were taught along with the day pupils, both in the classroom and in the manual arts. It was at this time that instruction in farming was also added. The boarding school facilities were quite popular and the following year the number maintained had to be increased. The Indians were moving from the Mohawk Village to the present reserve and there was a great demand for space in the pupils' living quarters. This development of the work in the Mohawk Village was largely responsible for the increased cost to the New England Company of its missionary work on the Grand river. Approximately £4,000 per annum was necessary for its combined activities.

In 1838, there were suitable buildings and equipment for the maintenance and training of 30 boys and 10 girls. The older boys were trained as wagon-makers, blacksmiths and carpenters and the girls, in the duties of housekeeping and the arts of needle work, spinning and knitting. In 1843, when practically all the older Indians had left the village, the manual labour school was considered quite a successful institution and it was referred to by all interested in the betterment of the Indians' condition as a model institute. The pupilage was increased to 45 in 1844 and three years later there were 50 in attendance, with 50 on a waiting list. The average cost per pupil was stated to be £20 per annum. The chief instructor under the Rev. Mr. Nelles was a Mr. R. E. Clark.

The scheme of settling graduates on small farms near the Institute was tried shortly after the older Indians commenced to move away from the Mohawk Village. It is reported that in 1853 there were 40 adults practically all graduates of the school, residing near it, farming and following the trades which they had been taught. The day schools on what is now the reserve were only partly successful. Between 1820 and 1850, there is evidence of 13 or 14 separate day schools, most of them established by the New England Company, 3 by the Wesleyan Methodists and one by the Indian Department. Some of these were closed or were moved, as the Indians in those days were constantly moving from place to place. By 1853, the New England Company decided that the Mohawk Institute was meeting with so much more success than the day schools, that especial attention and funds should be devoted to its activities.

In 1859, the Mohawk Institute was rebuilt on the New England Company's 10-acre lot, which was a few hundred yards from the old site near the Mohawk Chapel. The company had originally acquired this lot, the Manual Labour Farm of 200 acres and other land, by purchase from individual Indians. In 1843, patent to its holdings was requested and Order in Council dated August 31 of that year granted the 10-acre lot to the company. Possession of the Manual

Labour Farm was offered as long as it was used for school purposes. The company did not accept this offer until 1856, when it was apparent that undisturbed possession was in the best interests of the institute and the licence of occupation was then issued. By 1864, it was found inadvisable to continue intensive training in trades other than farming. More land was therefore required for farm purposes and the company purchased the Babcock lot (32.95 acres) between the school and the town.

The new white brick three-story building accommodated 90 pupils and another period of usefulness was commenced. By 1867, three of the boys gave such academic promise, that arrangements were made for them to take classes at the Grammar School in Brantford. In 1869, three girls—Helen Johnson, Susannah Carpenter and Jemima Maracle—and two boys—Henry Johnson and Nelles Monture—were sent to Hellmuth College, London. This appears to be the first real effort to give advanced academic training to graduates of the Institute. At this time, a Mr. Bouslaugh was superintendent of the school under Canon Nelles.

It is interesting to note that His Royal Highness the Prince of Wales, later King Edward VII, visited the Institute and the Mohawk Chapel during this period (1860). The first Indian to be appointed to the staff was Isaac Barefoot, a former pupil, who returned as a teacher in 1869. Barefoot had taught at No. 2 School on the reserve and had attended the Toronto Normal School. While on the Institute staff, he was acting principal at different times. Later, Mr. Barefoot attended Huron College, became ordained by the Church of England and served his own people as incumbent of one or other of the churches on the reserve.

In 1870, the New England Company erected an addition to the main building. A few years later additional space for the staff was provided. About this time there was also built a new principal's residence. The school then had accommodation for 90 pupils and the necessary teachers and instructors. As before, the capital expenditure was undertaken largely by the company.

Archdeacon Nelles retired from the principalship of the Mohawk Institute in 1872 and devoted his remaining years to missionary duties only. Before he died, he had given nearly fifty years of his life to the Six Nation Indians. Mr. R. Ashton, who succeeded him, gave early promise of much success with the interesting work. A few years after his appointment, Mr. Ashton took Holy Orders. The new principal had an eye for beauty and he turned the uninteresting grounds in front of the building into lawns and planted shrubs and trees.

The Rev. Mr. Ashton saw the advantage of having the Six Nation Indians take an interest in the conduct of the day schools on the reserve. He was instrumental in the appointment of a school board in 1878. On the board there were representatives of the department, the various churches interested and several Indians. This was the beginning of what is now the only Indian school board in Canada. Its composition has changed from time to time—the members now being Indians of the band and the department's representative. Mr. Ashton was the first secretary of the board and the first meeting was held in the Mohawk Institute. It is interesting to note that practically all the teachers of the day schools on the reserve in 1880 were graduates of the Mohawk Institute.

In 1885, the New England Company decided to accept other than Six Nation Indians, and, from that date, a small proportion of the pupils has always been from other reserves. At this time, the Department of Indian Affairs allowed its first grant for what might be called current expenses. Earlier, any public funds that were given were used to assist with improvements. An Order in Council in 1885 approved of ten scholarships of \$25 per annum for graduates of the Mohawk Institute who would attend high school in Brantford while in residence. It is interesting to note that Miss Susan Hardie was one of the first six to receive these Government scholarships. She made such good use of her opportunity, that in 1887 she was appointed teacher of the junior room.

Certain commissioners of the New England Company visited Canada in 1889, and they approached Mr. Vankoughnet, Deputy Superintendent General of Indian Affairs, in connection with a Government grant towards the maintenance of the Mohawk Institute. The following year, the Superintendent General, when in England, met the governors of the company in relation thereto. It was explained that the cost of conducting the school was \$79 per pupil per annum, and the department was asked for a per capita grant of \$60—the company representing that the conduct of the Institute was a serious drain on their financial resources. An Order in Council approved of this grant as from July 1, 1891, and, since that date, the Department of Indian Affairs has undertaken the major portion of the current expenses and has shared the responsibility for the conduct of the school.

In 1891, as the department was assisting with current expenses, the New England Company's funds were released for a very necessary addition to the school and for other improvements. Accommodation was then available for 125 pupils. In 1895, 110 children were being maintained and educated, and four years later the school was filled. At this time, the department allowed grant for 91 children. The training of the boys in blacksmithing, carpentering, etc., was then practically discontinued. The farming and gardening operations were considered more valuable to the Indians and were certainly more important to the financial maintenance of the Institution. A second greenhouse was erected in 1897.

At this time the Cadet Corps of the Mohawk Institute enjoyed a fine reputation. At a military review on Dominion Day, 1896, the boys carried off a silver tankard, the chief prize of the day. Lieut. Ernest C. Ashton (now Major-General) was the instructor.

In April, 1903, the main building was totally destroyed by fire. It had been erected in 1859 but had been added to from time to time. A few weeks later the barns were burned, and a little later again, the boys' playhouse, temporarily used as a residence, was destroyed by fire. There is no doubt that incendiarism on the part of pupils was responsible. In spite of the blow to its work and hopes, the New England Company decided to rebuild. The insurance on the old building was not sufficient for the reconstruction and the Department of Indian Affairs was asked for a grant towards the cost of a new building. In the interim, temporary provision was made for 85 pupils.

Before rebuilding, the company endeavoured to purchase the Manual Labour Farm, which had been secured by them from Indians and held under licence of occupation for many years. The Indian band was against the sale of its land and the company had to be content with the old arrangement. Two members of the court of the company, Lord Stamford and Mr. Wigram, visited Canada and decided that the new school should be erected on the old site. In 1904, \$33,000 was expended on the reconstruction—the new building having been designed by the Rev. Mr. Ashton and his son, Ernest. The following year the department granted \$3,000 towards the domestic water supply and fire protection. The new building was first occupied in October, 1904.

In 1911, the Rev. R. Ashton resigned from the principalship but continued as chaplain of the institute. His son, A. Nelles Ashton, was appointed principal. At that time, the department increased the per capita grant to \$100 and provided this amount for 120 pupils. The New England Company, in view of this large increase in the grant for current expenses, accepted the entire responsibility for the buildings. At the outbreak of war in 1914, Mr. Ashton resigned and enlisted in the Canadian Expeditionary Force. His sister, Mrs. A. M. Boyce, was appointed acting principal. The following year, the New England Company sent out to Canada the Rev. C. M. Turnell, M.A., who was placed in charge. Mr. Turnell made efforts to improve the standards of maintenance and training. During his time music was emphasized. He resigned after three years as principal and was succeeded by Mrs. A. M. Boyce. At this time,

General E. C. Ashton was appointed lay commissioner by the New England Company. The department allowed additional grant for 10 pupils in 1917 and again two years later, at which time \$120 per annum was allowed for each of 120 pupils.

The New England Company was finding it difficult to finance the school. Some years earlier, when funds were required for the company's school at Lytton, B.C., some of the Glebe lot had been sold. (This money was later refunded and used for improvements at the Mohawk Institute.) The company sought permission to sell part of the Manual Labour Farm and to devote the proceeds to school purposes. When the department could not agree, the Babcock lot, which was owned by the company, was sold.

In 1918 the company was obliged to effect economies and, not wishing to retrench in their educational program, the Department of Indian Affairs was approached. It was explained that the company's income did not increase and that the purchasing power of money had been materially reduced. The department did not purchase the property of the school but the responsibility for current expenses was undertaken. The per capita grant was increased from \$120 to \$200 and the department, in conjunction with the principal, endeavoured to place the school on a sound financial basis. In 1921, it was possible to reduce the grant to \$180 per child.

In 1922, it was determined by the courts that the Manual Labour Farm belonged to the Six Nation Indians. The department decided to pay a rental to the band funds of \$500 as long as the property was required for the Institute. A few years earlier, the company had voluntarily relinquished possession of the Glebe lot, but the use of 90 acres of it for school purposes was continued.

Certain improvements were necessary, and before spending public money on the Mohawk Institute, the department decided to make some arrangement with the owners. Dr. Duncan Campbell Scott, Deputy Superintendent General, interviewed the Governor and the members of the court of the New England Company in London, England; and secured a lease of the Institute for a term of twenty-one years. The company gave the department an annual grant of £1,000 towards the stipend of the principal and the maintenance of the school. In 1922, the department enlarged the main building, at a cost of \$43,000. The same year, Mrs. A. M. Boyce married Mr. S. Rogers, the assistant principal, and he was appointed to the principalship.

The per capita grant was placed at \$160 per child in 1922, which amount was more in harmony with the departmental scale of grants to Indian residential schools. In addition, a special grant was allowed for every pupil that was attending high school in Brantford while living at the Institute. Three years later, grant was provided for five more pupils—a total of 125. In 1927 and 1928, a new barn was erected and other improvements effected by the Department, at a total cost of approximately \$10,000. At this time, Mr. Chubb, a member of the court of the New England Company, and Major Bush, the charter clerk, visited Canada and made an inspection of the school. In 1929, upon the resignation of Major Rogers, the Rev. H. W. Snell, B.A., was appointed principal. Miss Susan Hardie, senior teacher, was given an address and a presentation by the Six Nation Indian Council. In 1929 she completed her forty-second year of continuous service in the classrooms at the Institute. The ex-pupils also presented her with an address.

At the time of this writing, the department is considering the finishing of the top story on the boys' side of the building, which improvement will provide accommodation for an additional twenty pupils.

Throughout the entire history of the school, the chief place of worship for the pupils has been that very interesting church known as "His Majesty's Royal Chapel of the Mohawks." Very few Indians, other than pupils, have worshipped there regularly since the desertion of the Mohawk Village, about ninety years ago. As mentioned earlier in this story, Chief Joseph Brant was successful in

having His Majesty's representative provide a church for the Mohawks who were about to settle on the Grand river. In 1785, a contract was let for this, the first church to be built in Upper Canada and the first Protestant church in either of the Canadas. Alterations and improvements were made in 1829 and the following year the Chapel was consecrated by the Bishop of Quebec. In 1869, the building was again improved—the necessary funds having been collected by Archdeacon Nelles and others. The Six Nation Indians and the New England Company were contributors. It should be stated that the principal or the chaplain of the Mohawk Institute was always the chaplain of the Royal Chapel. In 1904, Rev. R. Ashton placed the facts concerning this interesting Chapel before the Governor General, praying that His Majesty King Edward VII might be pleased to call it "His Majesty's Chapel of the Mohawks." His Majesty graciously gave his consent.

The Royal Chapel is the possessor of some most interesting and valuable relics, including a solid silver Communion Service and a large Bible, the gifts of Queen Anne. In 1709, several Mohawks from the British colonies had been taken to England, where they were received by the Queen. She presented them with medals and promised further gifts. The Bible and the silver plate were presented to the tribe in 1712. The silver Communion Service bears the inscription, "The Gift of Her Majesty Ann (sic), by the Grace of God, of Great Britain, France and Ireland and of Her Plantations in North America, Queen, to Her Indian Chapel of the Mohawks." The date is not inscribed but the silver-smith's hall-mark is that of 1711. During the American Revolution these treasures were buried in the ground for safekeeping. Later the Indians returned, recovered them and brought them to their new home in Canada. Part of the original Communion Set is now at the Tyendinaga reserve, near Belleville, on the bay of Quinté, where some of the Mohawks had settled.

Since the Bible and the Communion Service have been at the Mohawk Chapel, many notables have visited there and the flyleaf of the Bible has been signed by the following, among others: King Edward VII, King George V, Queen Mary, the Prince of Wales, the Duke of Connaught, Princess Patricia, Lord Lisgar, the Earl of Dufferin, Sir John A. MacDonald, the Marquis of Lansdowne, the Earl of Minto, Earl Grey and the Duke of Devonshire. As the Prince of Wales wrote his signature, he remarked that it was the first time he had ever signed on the same page with his father and grandfather. Recently have been added the signatures of Prince George, Baron Byng of Vimy, Lord Willingdon and Premier Baldwin. There is also a Royal Coat of Arms, sent out from England by the Government in 1786. This also had been ordered by Queen Anne. Accompanying the Coat of Arms were tablets on which were inscribed, in Mohawk, the Lord's Prayer, the Ten Commandments and the Apostles' Creed.

The grounds about the church have been used as a cemetery and contain the graves of many noted Indians, pioneers and loyalists. Probably most notable among these is that of Thayendanegea, whose tomb has required protection from souvenir hunters. This tomb contains also the remains of his son, Captain John Brant. Outside the entrance to the church hangs the original bell, which was at one time rescued from the hands of a junk dealer by Chief George Johnson, the father of Pauline Johnson, the Indian poetess.

The Prince of Wales' first visit to the Royal Chapel was on October 20, 1919. The Mohawk Institute provided the guard of honour. His Royal Highness planted a pine tree at Brant's tomb. The school is the proud possessor of an autographed picture of the Prince, presented shortly after his visit.

The Mohawk Institute has always given prominence to student organizations and this has been responsible for the fine spirit among the older pupils. The work of the Cadet Corps has already been mentioned and the Girl Guide organization has been equally effective. The chief sports have been hockey, football, basket ball, baseball and track events. In the early days, lacrosse

was popular. Peter White, of the St. Regis reserve, who graduated about forty years ago, became one of the most famous lacrosse players in Canada. Some of the boys have been quite prominent in distance running. Tom Longboat, who left school in 1901, achieved international fame as a marathoner. Two or three pupils who are now in their 'teens show great promise at the middle distances.

During the Great War, 86 graduates enlisted for overseas service—5 making the supreme sacrifice. Fred Loft, a graduate of 1875, became a commissioned officer. Other Indian graduates were non-commissioned officers and practically all of those on the school's honour roll served with great credit to themselves and to their race.

There have graduated from the Mohawk Institute many Indian boys and girls who have made good, not only on their reserves, but in white communities. Some have been named earlier in this article, but there are others who are worthy of special mention. Approximately 55 graduates have proved successful teachers at Indian day schools. Sarah Davis, Lydia Lewis and Catherine Maracle, graduates of 1880, gave splendid service as teachers on the Six Nation reserve. The first named, who taught for 27 years, was a great reader and a well informed woman. Her influence and example have done much for the community. Elam Barefoot, a graduate of 1882, taught on the reserve for 20 years and for the past 12 years has had a good position with the Cockshutt Plough Works at Brantford. John Lickers, the present truant officer on the reserve, graduated in 1885 and taught school for many years.

The Mohawk Institute is still turning out teachers who give fine service among their own people. Wilma Smith, a graduate of 1918, obtained professional standing and taught very successfully for 10 years. She was the first Indian student to graduate in music and she has been organist, respectively, at the Mohawk Chapel and Sour Springs Church on the reserve. Miss Smith resigned her school a year ago, upon the occasion of her marriage to Andrew Jamieson, who will be the first Indian to graduate from the Agricultural College at Guelph. Elva Miller and Sylvia Jamieson should also be mentioned as having given good service in reserve schools. Jessie Osborne, a graduate of 1883, taught successfully in white schools.

Three graduates of the Mohawk Institute, in addition to Isaac Barefoot, have entered the Christian ministry. The Rev. Thomas Whitebeans, a graduate of 1888, is the United Church minister on the Sarnia reserve. S. Brigham pursued his studies at Huron College, London, and became a Church of England clergyman on the Walpole Island Indian reserve. Melchie Henry, who graduated as recently as 1917, is the incumbent of a Baptist Church on the Six Nation Reserve. Several graduates of the 80's made their living as artisans in white communities. In this connection, the names of Isaac Williams, John Russell, Harry Jones, and Louis Jacques might be mentioned. A great number of the graduates of the Mohawk Institute became successful farmers. Special mention might be made of Nelson Moses, a graduate of 1878, and Archie Lickers, Frank Miller, William Powless, Jesse Moses, and William Smith, who are prominent in reserve matters at the present time. Foster Lickers, a graduate of 1899, and an honoured veteran of the Great War, is now fruit farming near Grimsby. The business world claimed Joseph Deslile, Thomas Green, Jacob Miller, and John Elliott, graduates of the 70's. The last named had a fine reputation as an orator. One of the earliest graduates of the school was Chief George Johnson, who was interpreter to the missionaries and was assistant to the Superintendent of the Six Nations. He left the Mohawk Institute about 1835 and was one of the finest Indians on the reserve. He built a splendid home and named it "Chiefswood." It was here that his daughter, Pauline Johnson, the famous Indian poetess, was born.

Many Indian girls who have left the Mohawk Institute have been noted as successful homemakers and splendid mothers. Special mention should be

made of Sarah Russell '88; Edith Styres '01; and Jessie Vanevery '09. Other graduates have made successful nurses. In this connection the names of Bessie Green '00; and Susanna Latham '06 should be mentioned. Business has claimed other girls when they left the Mohawk Institute. Outstanding successes were Floretta Maracle and Jane Osborne, graduates of '81; Beulah Styres '05; Phyllis Jamieson, Ida, Mary and Eva Curley, Rena Davis, Grace McNaughton, Alice Herkimer and Luella Moses, who left school during the war years.

Upon reviewing the history of the Mohawk Institute, which has served the Protestant Indians of Ontario for 100 years, it is evident that its contribution, particularly to the Six Nation Indians, has been of inestimable value. At least 1,300 Indian boys and girls have been maintained and educated in this Christian institution for a term of from five to eight years each. Special mention should be made of the service of Archdeacon Nelles and the Rev. R. Ashton, whose terms as principal total 80 years. Mrs. Ashton's long services are also worthy of recognition, as she took an active interest in the pupils of the school. The Church of England in Canada has always supplied a man in Holy Orders as principal or chaplain, and it may be stated that the Church and the New England Company have good reasons to be proud of their activity at the Mohawk Institute at Brantford.

The report of the Indian Commissioners *re* Adhesion to Treaty No. 9, was published in the Annual Report for 1929; the following is the report of the Indian Commissioners regarding the Adhesions to this Treaty taken in 1930.

REPORT OF COMMISSIONERS *re* ADHESION TO TREATY No. 9, FOR THE YEAR 1930

To the Honourable,

The Superintendent General of Indian Affairs,
Ottawa, Canada.

The undersigned commissioners appointed under and by virtue of a commission dated the 30th day of May, 1929, in accordance with a minute of a meeting of the Committee of the Privy Council approved by His Excellency, the Governor General, on the same date, to negotiate with the Ojibway and other Indians in northern Ontario an extension of James Bay Treaty No. 9, respectfully submit this, their second and final report:—

The commissioners made a report dated August 30, 1929, upon the question of the extinguishment of the Indian title on the last remaining area unceded in the province of Ontario, if not in the whole of Canada, and a reference to such report, which may be found on pages 20 to 23 of the Annual Report of the Department of Indian Affairs for the year 1929, discloses the situation as regards the area involved, defines the purpose of the negotiations with the Indians and details the work accomplished.

The area in question, generally speaking, comprises all that portion of the province of Ontario lying north of the Albany river and extending to Manitoba on the west and the Hudson bay and James bay on the north and east, comprising approximately 128,000 square miles, and containing a number of important Indian trading posts or encampments where the Indians barter their furs, enjoy for a few weeks each season a limited communal life and receive their treaty payments.

The great distances these posts are from white civilization and from each other, without ready means of communication, enhance the difficulty of reaching the resident Indians regularly and conveniently by any means except that of air craft. To understand the problem of keeping in direct contact with them, studying their needs and co-operating with them in an attempt to protect them

by maintaining their primitive pursuits for which by nature they are so successfully attuned, let it be said that the most northerly port of call this year, Fort Severn on the Hudson bay, at the northeast corner of the province of Ontario, is over 1,000 miles north of Point Pelee on lake Erie, the most southerly point of the province.

It is a long call from the primitive paddle to the palpitating plane but the latter device has helped to solve the problem by annihilating distances. Hence the flying machine is accomplishing in days now what required months and even years heretofore.

Last year, due to the magnitude of the area to be covered, and the inability to secure sufficient gas caches to supply the needs of the aircraft at the outlying points on the Hudson bay, Trout Lake and Lansdowne House were the only points at which Adhesion to Treaty was signed, the two other posts provided for in the program, Fort Severn and Winisk on Hudson bay, having been placed on the itinerary for the summer of 1930.

During the fall of last year and the spring of this year gas was transported by Hudson bay schooner from Montreal through the straits to the bottom of the bay, and then relayed to points on the west shore of James bay and to the trading posts at the mouths of the Winisk and Severn rivers. From Fort Severn 325 drums were conveyed by canoe transport 260 miles up the Severn river to Trout Lake which, however, by leakage, resulting from faulty shipment, had, much to the chagrin and keen discomfort of the commissioners and pilots, been reduced to a hazardous quantity of about fifty drums when the treaty party reached this post in July of this year.

As the annual payments under Treaty No. 9 had to be made to cover points at which the commissioners were required to call, the aircraft served the double purpose of conveying the commissioners and the treaty paymaster, the latter, H. N. Awrey, serving in the dual capacity of paymaster and commissioner, and with him Commissioner Cain collaborated in all payments. Under this arrangement an economy of time was effected and a joint provincial and federal check accomplished.

COMPANION FLIGHT

Last year the Dominion Government provided one plane and the provincial Government the other, but this year Ontario, due to the pressing demands made upon its flying fleet owing to the acute fire hazard, was unable to furnish one. Consequently the Royal Canadian Air Force, through the Department of National Defence, supplied two cabin planes, Fairchild's 71 with wasp engines, Nos. 113 and 114.

The instructions required each machine to keep in sight of its companion since much of the territory to be covered was far removed from contact with the older sections and was being air blazed and investigated for the benefit of future flying.

The officer in charge of the planes was Flight Lieutenant Dave A. Harding, with an important flying record of thirteen years to his credit, of which two and a half years was spent overseas for which he was awarded the Air Force Cross. Harding piloted plane 113 and Flying Officer Kingsley Rose, of Old Country experience, plane 114. Corporal Jerry McManus was the mechanic for the former and Rene Gauthier, A.C. 2, for the latter.

The itinerary provided for a hop-off from Ottawa to Remi Lake on July 2, and a return to Remi on or about August 4. This itinerary, however, made no provision for inclement weather, nor for a necessary and important detour or side trip to Sandy Lake narrows, near the Manitoba border, subsequently undertaken and fully referred to later on in this report.

The very unusual weather conditions of the spring of 1930 in Ontario, with its exceeding drought extending even beyond the middle of June, created an unprecedented fire-hazard in Ontario's distant sections and resulted in extensive

areas being burnt. This period was immediately followed by one of electrical disturbances and uncertain weather types that operated rather disadvantageously for flying craft.

Such conditions pursued the treaty party most relentlessly and the intermittent spells of semi-favourable weather had to be cautiously seized. As a result the commissioners found it necessary at all posts, as last year at certain posts, to disregard formality of hours and work steadily throughout the day and far into the night. Notwithstanding the incessant rains, the variable winds, the ever-recurring low curtained skies and other handicapping features, the schedule tentatively arranged before leaving Ottawa was reasonably maintained and for this the commissioners desire to express their appreciation of and thanks to the capable and painstaking pilots and obliging and efficient mechanics.

When one considers the distances covered, the extensive areas observed, with the numerous uncharted lakes, rivers and streams without human habitation and with few established points for direction, the importance of the Air Service in its ability to annihilate distances and perform feats that make for human and economic progress is manifest, and with the experience of several flying seasons, but particularly the last two, the commissioners consider it opportune to comment upon that which should be quite obvious, viz.: the need of a dependable personnel in the Air Service. Sobriety, caution and resourcefulness with the airman, each in turn, begets in the passenger confidence, stability and peace of mind, and the commissioners hereby freely pay tribute to the crews for exemplifying such qualities and also for applying technical knowledge in trying circumstances. Absolute freedom of decision on weather forecasts and hopping-off times, was left to the pilots, subject to the convenience of the commissioners and the performance of their duties. Sympathetic co-operation throughout the whole trip between the individual members of the crew and between the crew and the commissioners added an effectiveness and pleasantness to the tedious and exacting though interesting and historic task.

The provincial Government, through the Hon. W. Finlayson, Minister of Lands and Forests, very kindly intimated to the commissioners, prior to their leaving, that should any emergency occur the entire resources of the Ontario Flying Force were at their disposal—a considerate and practical suggestion, prompted by the spirit of sympathy traditional with the Ontario Government in its dealings with the Indians and fully appreciated by the commissioners.

A small 16 m.m. movie picture camera was taken by the Commissioners to make a permanent pictorial record of certain features of the trip, but unfavourable weather considerably interfered with the attempt and the pictures, the reels of which are lodged in the Department of Indian Affairs, are therefore limited.

JOURNAL RECORD OF TRIP

The two planes, with Commissioner Cain in No. 113 and Commissioner Awrey in No. 114, started from Rockcliffe Air port on the Ottawa river at 12.20 p.m. on July 2, 1930, in favourable weather, in the presence of Group Captain G. L. Gordon, Squadron Leader Major Godfrey, and Wing Commander G. O. Johnson, executive officers of the R.C.A.F., and a number of the relatives and friends of the treaty party, including representatives of the Department of Indian Affairs. After a delightful flight over the Ottawa valley and the picturesque country it embodies, Trout Lake, near North Bay, was reached at 2.20 p.m. Following luncheon the weather became bad and Officer Harding, upon learning by phone the weather situation at Moonbeam and Remi Lake, north of the Transcontinental railway six miles and west of Cochrane fifty miles, the objective for the day, decided to defer moving until next morning. The party, excepting the mechanics who remained with the planes, motored to North Bay and registered at the Empire Hotel.

About ten o'clock next morning, July 3, the weather cleared and the planes took off for Remi Lake where a landing was made at 1.30 p.m. At this point, the logical and only established air base in northern Ontario for hopping-off purposes in connection with flights to James bay and intermediate posts and locations up the Albany river, the Ontario Provincial Air Force have a comfortable and commodious lodge, an efficient set of officials and an excellent cuisine, financed and operated by the staff itself.

Dr. Mitchell of Sioux Lookout, representing the medical service of the Department of Indian Affairs, joined the party here. Certain equipment, including a "tank" of fly and mosquito spray, was secured and after a restful night the party, with Dr. Mitchell in plane 113, hopped off on Friday, July 4, with a clear sky and a glorious sun, for English River, the first Indian post where treaty money is paid under Treaty No. 9.

This post is at the confluence of several large rivers and the English river, which wends its way about one hundred miles northwards where it empties into the expansive Albany river, this route being the one generally taken by water travellers to Fort Albany on James Bay from the line, Pagwa on the Transcontinental being the point of embarkation.

ENGLISH RIVER

On leaving Remi the pilots steered a course northerly of and paralleling the railway to Kabinagami and Pagwa rivers, then down the valleys of these serpentine waters to English River post, reached at 11 a.m.

The acquaintance made by the commissioners last year with the genial and hospitable representatives of the trading companies, and with the energetic Anglican clergyman, were renewed. Friday and Saturday, July 4 and 5, were spent in paying treaty money and considering certain submissions of interest to the Indians. Addresses were given by the commissioners and the two pilots, whose recitals of their oversea experiences, in the Great War, with courageous Canadian volunteer Indians, were eagerly received. Over one hundred gathered, there being present a number from the Fort Albany band.

Dr. Mitchell urged care and attention to their health and gave them in simple, intelligible language a number of "don'ts." It was gratifying to learn that Chief Faries, an Indian of exceptional interest, reported a very decided respect for law and order, the good counsel sympathetically given by the commissioners last year having been graciously received and faithfully followed.

Saturday, July 5, was impossible flying weather, the order of the day being heavy rains, low-hanging, black clouds, interspersed with sunny spots which were seized by the Treaty party, after formal work was completed, to instruct and entertain the Indians in artful pastime games and amusing tricks. Special mention in this regard should be made of mechanic Gauthier whose wizard tricks, not only at this but at other posts visited, which included the freeing himself from knotted rope entanglements, and modern handcuff bracelets, gave the Indians a real thrill and solid enjoyment and netted Gauthier the sobriquet of "Wendigo."

OGOKI

The inclement weather continued all Saturday night and until noon Sunday, July 6, when a hop-off was made for Ogoki. The visibility was poor and the weather threatening, in consequence of which, along with an unexpected landing on the Albany river below the forks, arrival at Ogoki was delayed until 3.45 p.m.

Good lodging was secured at the home of the Hudson's Bay Company's factor, Mr. Anderson, who with his daughter courteously received the party and eminently supplied its needs.

On Monday, July 7, the commissioners arose at 7 o'clock and immediately after breakfast made payments to one hundred and forty-six Indians. The paymaster made a generous distribution of clothing and certain useful articles

to old widows and dependent old men, Dr. Mitchell the while treating those requiring medical attention and dispensing drugs. The work was rushed to completion at 3.30 p.m., and there being a welcomed rift in the cloudy sky the party took for Fort Hope, and reached there at 4.45 p.m.

FORT HOPE

Fort Hope on the Albany river was, up to the year 1912, the most northerly point in the province of Ontario, but the pushing back of the frontier and extending the boundary to the bay has tended somewhat to give this post a modern aspect and with the advent of the aeroplane and the establishment of an air base and a wireless station by the Department of Lands and Forests of Ontario closer communication with the outside world has resulted. Fine buildings have been erected by the Hudson's Bay Company and Revillon Freres. An Anglican Mission is in charge of Rev. J. McDonald, a striking personality, while the school is presided over by his son, John. A Catholic Mission is periodically attended by Rev. Father Couture, O.M.I.

Members of the party were cared for at the trading posts, Mr. Flett, representing the Hudson's Bay Company, and Mr. Souter, Revillon Freres. Two Moth planes of the Ontario Air Force were met here, one in charge of Pilot Swartman from Sioux Lookout, and the other in charge of Pilot McCoy from Caribou.

After the evening meal baseball and horseshoe pitching were temporarily indulged in to the delight and satisfaction of the Indians present. Conferences with the trading companies at night touching on their relationship with the Indians were held.

Early on the following morning, Tuesday, July 8, the commissioners crossed the river to the clean and well prepared Council House on the reserve, where all day until 6 p.m. was devoted to paying treaty money. During payments several pagans, members of this band, appeared and it did not require a very discriminating eye to recognize this type. Less careful in their dress, cleanliness and manners than the Christian Indians they at once appear apart; even in their movements their primitive and unchristian customs are evident. One couple, claiming marriage according to pagan rites, by the great disparity in their ages, he being but 40 years and she over 80 years old, added a zest, if not a sentiment, to the occasion.

Tuesday evening, July 8, Dr. Day of Sioux Lookout arrived to substitute Dr. Mitchell who was called home.

Treaty payments were completed by noon Wednesday, July 9, and in the afternoon over two hundred and fifty Indians assembled on the south side of the river and patiently listened to addresses by Commissioners Cain and Awrey, the former emphasizing the necessity of complying with the fire protection and game laws, and the latter counselling the Indians on the need of thrift and additional display of energy by reason of the limited success in the chase the past year.

During the day the plane officials were busily engaged in making important repairs to plane No. 113, and overhauling the wiring on both. The pontoon of plane 113, while anchored in what was believed a safe zone, was damaged by Indians and half-breeds who were racing in outboard motor canoes, one of which sideswiped the plane and ripped the bumper several inches. For this culpable negligence they were severely censured by Commissioner Cain, an eyewitness of the occurrence.

LANDSDOWNE HOUSE

Leaving Fort Hope on Thursday, July 10, at 1.50 p.m. the planes under fair weather proceeded to Lansdowne House about 60 miles due north. This point is situated on Attawapiscat lake, the headwaters of the great river bearing the

same name that extends northerly and easterly over three hundred miles to James bay. It was at this point last year where fifty members of the Trout Lake band were enrolled and admitted to treaty, a number of them being present again this year. Commissioner Cain, who through illness last year was not present at the enrollment, desired to check them up and personally vouch for them.

Excepting the Trout Lake Indians mentioned, all those that encamp at Lansdowne House are members of and constitute practically fifty per cent of the Fort Hope band. As a concession to them they were privileged last year to elect from their number two of the four councillors to which the band by law is entitled, the other two being elected at Fort Hope. A request by the Lansdowne Indians to be granted a reserve in the vicinity of this post was refused as a reserve of complementary size had been regularly allotted at Fort Hope years ago, duly surveyed and its approval already recommended in the commissioners' report of 1929.

Dr. Day administered to the Indians on Friday, July 11, while the commissioners paid annuities and considered grievances. In the evening a general gathering took place, the commissioners and the doctor giving the usual admonitions. The Indians cast aside that reserve, more or less a characteristic trait, and freely asked questions pertaining to their welfare and evinced keen interest in the proceedings. After the meeting a short program of sports was run off for the benefit of the Indians, a number of whom, as previously remarked, had been admitted into treaty last year and were expecting some novel entertainment.

The following program of events was merrily disposed of:—

Event	Prize
Girls race—14 years and under—50 yards.....	(1) Brooch, all others—candies.
Boys' race—14 years and under—50 yards.....	(1) Soap and comb, all others—candies.
Girls' race—15 years and under—75 yards.....	(1) Compact,
	(2) Comb.
Boys' race—15 years and under—100 yards.....	(1) Mouth organ,
	(2) Soap and comb.
Sack race—Men and boys—50 yards.....	(1) Belt,
	(2) Comb.
Three-legged race—boys—50 yards.....	(1) Tie,
	(2) Cup.
Relay race—100 yards.....	(1) Chocolates,
	(2) Chocolates.
Tandem race—100 yards.....	(1) Comb,
	(2) Cigarettes.
Broad jump—Men.....	(1) Cigarettes,
	(2) Chocolates.
Oldest Indian—(aged 85).....	Large pipe,
Oldest squaw—(aged 80).....	Large coloured handkerchief.

All the prizes were donated by members of the party and purchased at the stores of the two trading companies.

Inspector Anderson of the Hudson's Bay Company was paying an official visit to the post while a young Mr. Smith had charge of Revillon Freres where the party was housed.

Saturday, July 12, offered very disagreeable weather, rainy, cloudy, windy, the wind having shifted several times during the day and for a long spell holding a velocity of 40 to 50 miles an hour. The air was chilly and the Hudson's Bay blanket in demand at bed time.

OSNABURGH HOUSE

On Sunday morning, July 13, at the first favourable moment the planes started for Osnaburgh on lake Joseph and arrived at 12.40 p.m. This post was the scene last year of the fatal accident to treaty plane WX, which crashed and sank in the lake carrying to his death an employee of the Hudson's Bay Com-

pany, one Sandy Morrison, upon whose grave in the little Indian burying ground upon the hill, beside the forlorn and neglected looking church, the commissioners upon arrival placed a wreath of native wild flowers as a silent tribute to Sandy's memory, and a submission to death's inescapable call.

Here was met the new factor of the post, Frank Harvey Aldous, an estimable English gentleman who has faithfully served the Hudson's Bay Company for thirty-five years, and who in less than one year has worked a noticeable transformation in the appearance and arrangement of the post and has radiated amongst the Indians an undeniable influence of cleanliness, neatness and thrift.

Mrs. Caron, another long and highly respected employee, a gracious lady, proved an excellent hostess and splendidly satisfied the most epicurean tastes of the inner man.

For the courtesy, attention and extreme hospitality shown by these officials the commissioners express their gratitude.

Pursuant to the practices of the white man in dealing with Indians under Treaty No. 9, the commissioners declined, though requested by some, to pay annuities on Sunday, but met the Indian worshippers on their reserve on the south side of the river and with Dr. Day delivered addresses applicable to Sunday service.

All day Monday, July 14, bad weather conditions limited the work to individual interviews and prevented the planes from proceeding to Sioux Lookout, where electrical overhauling of engines and the purchase of supplies were necessary.

During the morning of Tuesday, July 15, Commissioner Cain assisted Paymaster Awrey in paying annuities and determining cases submitted by the Indian Chief.

SIoux LOOKOUT

At noon the planes with Commissioner Cain left for Sioux Lookout, landing at the provincial air base within one and a half hours. Needed adjustments were made to the planes and certain replacement parts, sent from Ottawa at radio request of Officer Harding while at Fort Hope, were obtained. The night was spent in Sioux Lookout where Commissioner Cain purchased essential provisions to tide the party over its prospective and uncertain trips to Nikip and Sandy lakes in the interior and western portions of the Patricia District.

A heavy storm occurred at Sioux Lookout and a take-off was deferred until 2 p.m. Wednesday, July 16. Dr. J. O'Gorman, in substitution for Dr. Day called home, returned with the party to Osnaburgh House.

During the absence of the planes at Sioux Lookout Paymaster Awrey finished payments at Osnaburgh where Dr. O'Gorman upon arrival proceeded to the dispensary, conveniently provided by Mr. Aldous, and busily engaged himself until dark.

The next two points of call, Wendigo river, where it empties into Nikip lake, and Sandy Lake Narrows, had given the commissioners some concern. Nikip Lake was the fortuitous meeting place last year of the representatives of an Indian band with Commissioner Cain, whose forced landing due to diminished gas supply attracted the Indians encamped on the opposite side of the lake, about eight miles distant. The details of such meeting are recorded in the commissioners' report of last year.

These non-treaty Indians, supposed members of the Trout Lake band, had failed to appear for enrolment at Trout Lake in 1929, and while Commissioner Cain had advised them to report this year at Trout Lake it was subsequently deemed advisable for their tranquility of mind and future happiness to aggregate them into a separate and distinct band, meet them at a given spot, their own encampment, duly admit them to treaty and allocate them a reserve at the site tentatively selected last year by the Commissioners, or at such other one satisfactory to them, and to this end the commissioners had to direct themselves.

Added also to the agenda for 1930 was the question of providing a reserve for the Deer Lake Indians who are subject to Treaty No. 5 though resident at Sandy Lake, Northeast of Wendigo river and near the Manitoba boundary.

As the exact locations of these two Indian encampments were unknown to the pilots, and the supply of gas was a determining factor, it was decided to go to Wendigo via Kapikik, the most northerly air and radio base in Ontario, ideally appointed from both a practical and aesthetic point of view, and there refuel and notify Ottawa of intentions as the following three weeks would take the party out of further touch with the outside world.

Osnaburgh was left on Thursday morning, July 17, and Kapikik reached at 11.35. After refuelling a dead calmness prevented a rising and all luggage, except emergency rations and the money bag, was unloaded and deposited on the sandy beach for a return trip. Thus lightened the planes took the air and succeeded in picking out and arriving at the Indian encampment on the west side of the Wendigo river, about one-half mile above the point of its entry in Nikip lake, at 4.10 p.m. After a hurried lunch the crew left for Kapikik again to secure the luggage and then to proceed to Trout Lake to remove uncertainties of fuel supplies at that post.

WENDIGO RIVER AT NIKIP

The Hudson's Bay Company, through its outpost factor of Cedar Lake, John Wesley, prepared an office in the form of a new tent, 10 feet by 8 feet, for the commissioners, where the Adhesion was signed and the Indians enrolled. Two additional tents met the dormitory requirements, while an improvised table of rough logs and hewn pieces of spruce, supplemented by a rickety bench for adornment rather than practical purposes, satisfied refectory needs. That night all the Indians, 176 in number, headed by their chief, were summoned and addressed by the commissioners, who fully explained the purpose of their coming and sought the reason for the non-appearance of these Indians at Trout Lake last year. Desired band independence and traditional respect for the counsel of their former chief, now deceased, who urged them not to go that distance until treaty contract was made but rely on the Government's sympathy for and interest in them, accounted for their absence.

As these Indians with their squaws and papooses squatted around they presented a picture, in comparison with other bands, of unkempt, ill-clothed, rather penurious and distressed people. Their appearance indicated limited success in the hunt during the past year and their enrolment as wards of the Government should conduce to their improvement. Notwithstanding their seemingly underprivileged conditions their health was above the average, in which connection it is worthy of note that of all those appearing before Dr. O'Gorman for treatment not one was found with a tooth cavity, thanks presumably to the lack of sugar and sweet-meats.

In some respects these Indians are located at a point which is the most inaccessible of any Indian post in the province. To bring in supplies from the line involves a return trip by canoe of twenty to twenty-five days—the route being via Bucke on the Transcontinental and Osnaburgh on lake Joseph. A free trader from Osnaburgh occupied twenty-one days, making fifty-one portages, in coming to the post at treaty time to dispose of a few hundred dollars worth of goods.

Flour at 40 cents a pound, tea at \$1.25, pork at 70 cents, rice at 40 cents, and other staple articles usually used for table purposes by the white man, are proportionately high and if the hunt is poor and the fish scarce the Indians must necessarily restrict their requirements and depend upon the trading companies for their rations or grub staking.

The commissioners adopted the same method taken last year at Trout Lake and had the band select from their number certain leaders. Six met the com-

missioners in the "Administration Hall" on Thursday night, July 17, and for several hours discussed the terms and conditions of Treaty No. 9, to which they desired admittance.

The commissioners, after a thorough explanation of the treaty was given, urged the leaders to present the case to the entire band and not to agree to a single proposition unless it was clearly understood, since it was the desire of the King's representatives to report understanding and unanimity amongst the Indians. John Wesley, whom they knew well and in whom they had confidence, acted as interpreter and being a graduate of the Winnipeg Indian school was quite competent.

Next morning, Friday, July 18, the leaders again met the commissioners and submitted many questions which were fully answered, after which they intimated readiness to sign the Adhesion. The Indians manifested the keenest interest in the mounted map used by the commissioners, and which was hung upon the flag pole of the "office."

The commissioners first signed, followed by the leaders—Apin Kakepeness, Jonas Wasakimik, Samuel Sawanis, John Quequish, Patrick Kakekayash and Senia Sakechekapow—each of whom used the Indian syllabics. The signing was witnessed by Dr. O'Gorman and John Wesley and a snap shot of the occurrence, showing the signing table with the chief by the side, forms part of this report.

The entire band, numbering 176, were then enrolled, all Indians personally appearing with their wives and families. The names and ages of all were recorded and payments of gratuity and annuity made. No less than seventeen widows were enrolled, ten per cent of the whole band. While certain gewgaw articles, such as cheap rings, to satisfy the curiosity and primitive fastidiousness of the squaw, comprised part of the purchases of the Indians from the traders, the large percentage covered the essential ones of food and clothing.

So far removed from the line are these Indians that many of them have seen but few white men. No itinerant missionary visits this encampment, although there is a simple building of rough logs, with roof partly covered with crumpled tar paper, used for Christian service, two lay Indian Gospel readers taking charge. The splendid framework of a large church had been constructed out of hand cut logs but the reserve for the band having been chosen elsewhere the building may not now be completed. The Anglican missionary, Rev. Mr. Garrett of Trout Lake, visits Weagamow Lake, a day's journey from Wendigo, annually and some of these Indians attend Service there.

To these simple Christian people, solely dependent upon their aboriginal vocation, the chase, for their existence, the seaplane, the great "flying bird," was a source of interest. Even after feeling and examining it and observing it come through the air they were incredulous, concluding as it lay there—inanimate, like unto the bird that so often falls a victim to their aim, that it could never take on life again.

Up to the signing of the Adhesion, while claiming certain allegiance to the Trout Lakers, they were generally designated Wendigo and Round Lake Indians, but owing to the levity and humorous contempt in which the word "Wendigo" (Wandering Spirit) is regarded by the other bands within this expansive territory, and to the fact that Round Lake is not their summer rendezvous, they chose the name "Caribou Lake," where they selected their reserve, it being two days' travel eastward from their Wendigo encampment.

According to custom the Indians were given a feast, sufficient supplies such as flour, tea, lard, etc. having been procured from the Hudson's Bay Company. The men and boys, contrary to the expectations of the white men, made the bannocks for the feast, which consisted of these palatable cakes with fat pork juice and lard, tea and candies, all being spread before the squatting band upon the green sward, several of their leaders acting as hosts and standing with bowed heads in the offering of grace before partaking of the viands set before them

Elections were held and resulted in Apin Kakepeness being chosen chief and Samuel Sawanis and Senia Sakechekopow, councillors. The elected chief was the Indian who met Commissioner Cain last year, and proved such an enigma. Possessed of an attenuated frame and melancholy face he viewed everything, and surrounded himself with a veil of apparent mystery, not penetrated even by the enthusiasm of his followers, all of whom, including the children, congratulated him by shaking his hand.

The new council were presented with the Union Jack and appropriate medals, the significance of these having been explained by the commissioners.

Realizing the importance of a reserve they had carefully discussed the subject amongst themselves prior to the commissioners' arrival. Based upon their aggregate membership they are entitled to $35\frac{1}{4}$ square miles, which, with the approval of the commissioners, they selected on the south shore of Caribou lake, slightly to the left or west end, so that ample frontage of a somewhat extended bay will be included, the dimensions to approximate 8 miles in length by 4.4 miles in width.

The commissioners and the doctor concluded their work on Friday evening and patiently awaited the return of the planes which, however, did not appear on the horizon until Saturday, July 19, at 8.10 p.m. On arrival the pilots reported a safe landing at Kapikik on Thursday evening, impossible flying weather on Friday, a take-off on Saturday for Cat Lake for refuelling purposes, thence northeast to Trout Lake to investigate gas cache. Here to their amazement, and to the possible frustrating of plans, they found over eighty per cent of the R.C.A.F. gas, that had at extreme cost been freighted from Hudson bay up the Severn river 250 miles, a total loss through leakage, due to faulty packing. This criminal negligence involving such a loss, and placing pilots and passengers in grave situations, forced the relaying of gas from Cat Lake, a distance of 175 miles, and it was on the trip down from Trout Lake on Saturday they called at Wendigo with certain luggage and camera supplies of the commissioners, having left the mechanics at Trout Lake to reduce the load. Darkness setting in earlier than usual at Wendigo, the hop-off for Cat Lake was deferred until Sunday morning at 6 o'clock. The planes returned at 5.15 p.m. the same day, but because of the unpropitious weather, and the indefinite description of the next stopping point on elongated Sandy Lake, the trip there was left for Monday.

A band of Indians residing in the vicinity of Deer Lake within the territory included in Treaty No. 5, signed Adhesion to said treaty on June 9, 1910, and under its conditions were assured a reserve in the proportion of 32 acres per capita. At this time the territory formed no part of the province of Ontario, it being then part of the Northwest Territories. A final selection of the reserve had not been made and although the band in 1910 resided in the vicinity of Deer Lake the members have since changed their abode and are now in larger numbers resident about Sandy Lake, situate within territory covered by the commission under which the undersigned commissioners are functioning.

In 1910 when this band was admitted they numbered 95, augmented the year following by 78 Indians transferred from the Indian Lake band resident in Manitoba. These numbers have now increased to 332 and as the Island Lake Indians have been allotted their reserve, and have had it duly surveyed on a basis excluding those transferred to the Deer Lake band, the latter are now entitled to a grant.

Under the Ontario Boundaries Extension Act, R.S.O. 1912, chapter 40, provision is made whereby Ontario will recognize the rights of the Indian inhabitants in the territory added to and now included in the province by the said Act. These Deer Lake Indians resident in such added territory desired their reserve.

In pursuance, therefore, of an appointment made by the commissioners to meet representatives of this band at an indefinitely described point towards the

west end of Sandy lake, the planes took off from Wendigo at 7 a.m. on Monday, July 21, John Wesley, as interpreter, accompanying the party.

SANDY LAKE NARROWS

The distance being less than anticipated and the waterways somewhat different in size and shape from those shown on maps the encampment was reached in about one hour and was found situated at the "Narrows," a stretch of water lying between Sandy lake and lake Oo-pe-te-quah (little, short, squat, woman). The entire band had been waiting for some days for the treaty party but the majority had left, shortly before the arrival of the commissioners, for Deer Lake where they receive their annuities under Treaty No. 5.

About 75, headed by their striking looking Chief Fiddler, arrayed in his official uniform with his large medal bearing the impression of the late King Edward VII, his prided insignia, presented their claims. The chief predicated his submission by asserting his intention to speak the truth and humbly petition the King, through the commissioners, to grant his people their belated reserve at the very site where the white men then stood with the red men.

The chief briefly reviewed the circumstances above recited and the commissioners concurred in the site selected but explained that the size could not be determined until an examination of the regular annual returns at Ottawa would satisfy the commissioners that their members transferred from the Indian Lake band were not already beneficiaries under any other reserve selection. Expressing the utmost confidence in the commissioners the Indians were assured that justice in respect of their reserve would no longer be deferred.

Having regard for the number in the band, some 332, verified by official records, the commissioners hereby approve of a reserve at this point, the Narrows, consisting of 10,624 acres, or approximately 17 square miles, to be laid out in a rectangle having a width of at least 3 miles with sufficient depth to satisfy the aggregate requirements, the understanding being that the chief, or his nominee, shall be present at the time of survey to indicate on the ground the location desired.

With rousing cheers from the Indians the commissioners said "Adieu," hopped into the planes and with the advantage of a tail wind returned to Wendigo in forty minutes.

John Wesley left for Cedar Lake by canoe and the planes loading up with part of the gas relayed from Cat Lake started for Trout Lake and arrived at 3.30 p.m.

TROUT LAKE

The commissioners, learning of the illness of Chief Beardy of the Trout Lake band, immediately called upon him and extended sympathy. The Indians here wholeheartedly as last year received the party. Rev. Mr. Garrett and Mrs. Garrett, of the Anglican Mission, graciously received the commissioners with an invitation to be their guests during their stay at the post, which was reluctantly declined as reservations had already been made at the Hudson's Bay Company.

The new factor is J. F. Kighley, an energetic, genial and capable official, having as his clerk Horace Flett, son of the Fort Hope factor. The company have extended their improvements by the erection of new buildings, including an enlarged store, while the Indians have several small houses for occupancy in the summer. Several patches of potatoes were being cultivated by the Indians, the clay soil being rich and productive. The fine garden of vegetables at the company's house should be an encouragement to the Indians to cultivate the soil. A pit saw owned by the company and operated by two industrious Indians supplied building needs at the post.

Tuesday and Wednesday, July 22 and 23, were devoted to paying annuities, holding conferences, with the chief and councillors and enrolling a few delin-

quents from last year. The total number paid was 638. Twenty births and sixteen deaths occurred during the year. The health of the band was found by Dr. O'Gorman to be very good and apart from tubercular tendencies, more or less characteristic of the race, no pronounced organic troubles were found. The commissioners wish to emphasize the impression gained last year on admitting these Indians to treaty, that is, they evince in the main an intelligence and radiate an exultant joy of life that if existent in any other band met on the trip is obscured by a native stoicism and excusable indifference. The Indians challenged the whites to a football game, itching to revenge the defeat they suffered last year, but the tiring rains intervened and shattered their hopes.

Trout Lake Post was opened by the Hudson's Bay Company in the year 1793 and the barter in furs still continues with these Indians, numbering 638, of whom 627 were enrolled last year and 9 this year, with a natural increase of only 2. Fifty of them usually make Lansdowne House their camping grounds where they are paid with members of the Fort Hope band.

A feast, postponed last year due to the lack of supplies, was provided by the commissioners but the distressing rainy weather centred the preparations in the chief's scantily furnished log dwelling, which served as the "historical hall" last year, and thus the pristine glory and native glamour of outdoor open camp fire and teepee bakings were absent, although the enjoyment in partaking of the unusual delicacies was undiminished.

The Indians exercised certain concern regarding the survey of their reserves, three in number, selected last year, the fourth descending now to the Lake Caribou band, who selected it at Caribou Lake rather than at Round Lake where it had been recommended by the Trout Lake Council and tentatively accepted by the commissioners. Last year the non-appearance of the Wendigo and Round Lake Indians (now Lake Caribou Indians) resulted in an arrangement by which their reserve was to be the difference between the aggregate area to which the whole band was entitled and the area of the three reserves selected and referred to in the commissioners' report of last year. However, when these were selected the subsequent enrolment of fifty members at Lansdowne House was not anticipated, and consequently the area covered by the complete allotments was less than the band is entitled to under the treaty.

On an enrolment of 627 the band should obtain 125.4 square miles, or 14.4 square miles in excess of last year's allotment. To obtain this means an enlargement of Reserve 1, Trout Lake, from 70 square miles to 84.4 square miles, covered in the summary of this report.

Through an error the dimensions given in last year's report for Reserve 2, Sachigo, were incorrect, although the area, 14 square miles, was correct. These dimensions are now amended so that the block shall be $3\frac{1}{2}$ miles wide by 4 miles long. A rough description pending final survey is included in the summarized recommendations contained herein.

To allay the evident anxiety of the Trout Lake Indians respecting their reserves the commissioners gave them verbal assurance that a strong recommendation would be made for the taking of early adequate measures to have the areas approved and duly surveyed.

The commissioners visited the Anglican Mission school over which the painstaking Mr. Garrett presides, inspected over one hundred Indian children, listened to their splendid singing and freely paid tribute to the pupils and teacher on their remarkable showing. With only a few school weeks each year to their credit these Indian children show a keenness to learn and respond readily to the efforts of the teacher.

FORT SEVERN

Work at Trout Lake was finished at 11 a.m. on Thursday, July 24, when the party sought the air route once more and headed for the first Hudson bay objective, Fort Severn, down the Severn river 180 miles by air from Trout Lake,

and over 250 miles by canoe. This post was circled at 12.50 p.m. and the party for the first time gazed from an elevation of five thousand feet upon the great inland sea that sweeps the northern shores and affords the Hudson's Bay Company access to lonely posts, including Fort Severn, it had established and in active operation in the latter part of the 17th century when the Bourbon Kings were trying to plant the Fleur-de-lis in the western wilds.

The post is on the west side of the river about four miles from where it empties into the Hudson bay. The few buildings erected, including the inevitable store, freight shed, factor's residence and small log houses that shelter the limited employees, are placed on level ground back some distance from the bank which rises thirty to forty feet from the water's edge. Accommodation was secured at the company's house, the factor being George Third, a competent and experienced official with an obliging clerk Henry Mann. The only other white man here is Harold Bland, a former employee of sixteen years' standing with the company, now a trader in his own right.

Dinner was served within an hour after arrival and consisted in part of young duck, a delicacy much appreciated by the partakers whose absence from the freshness of things for some time made the offering the more acceptable.

The weather being rainy and stormy the Indians were asked to assemble on the morrow. At nine o'clock Friday, July 25, some seventy-five, the entire membership, selected their leaders, three in number, George Bluecoat, Mumzie Albany and Saul Crow. Charlie Gray, a half-breed, acted as interpreter.

In the early stages of their conference with the commissioners the Indians under their natural restraint, or childish reserve in the presence of white men, displayed some hesitancy but gradually on realizing that the commissioners were present as friends to give that which they asked they took on an air of responsiveness and freely talked. A frank expression of ideas and opinions was exchanged, and the Indians who showed an understanding of Treaty No. 9 were satisfied with the points presented and retired for final instructions from the other members, who gave the leaders general direction to accept Adhesion. The official document was signed by the commissioners and the leaders and witnessed by all the members of the Treaty party and George Third, H. F. Bland and Henry J. Mann.

Seventy-five were then enrolled, these comprising 15 men, 15 women, 22 boys and 23 girls. Each was paid \$4 gratuity and \$4 annuity.

At the elections, following payments, George Bluecoat was elected chief and Mumzie Albany councillor, and to each was given a medal. The Union Jack was unfurled and accepted by the chief as a symbol of "law, order, peace and protection."

Their reserve, containing 15.2 square miles, was, with the approval of the commissioners, after due consideration, selected at the mouth of the Beaverstone river, where it joins the Severn river, and is to have a frontage of 1.5 miles on each side of the Beaverstone and a depth of 5 miles more or less from its mouth, the river being shown on map No. 20a, issued in 1926 by the province of Ontario, as Beaverstone, although it is called "Castorum" by the Hudson's Bay Company and "We-ke-mow" by the Indians.

The accustomed feast was provided and their "table" display was more palatable in appearance than that observed in certain other bands.

The hunt during the season just closed was nearly equal to that of the previous one, the predominant skins being beaver and otter. White fox, of which there has been a decided scarcity for several seasons, is again appearing and prospects for a good return are bright.

Goods at this point, because of lower transportation charges, are much less than at Trout Lake, flour for instance being only \$20 a cwt. as against \$38 at the inland post. Lake trout and whitefish are available, though not in abundance, at high tide. They generally follow the ice and go with the spring freshets to the bay, returning the last of September and October to the upper stretches of

the river, their spawning beds. This treking movement accounts for the obvious scarcity of fresh fish during the period of summer encampment. Speckled trout are procurable in certain fresh water streams a few miles from the post.

Commercial communication of Fort Severn with the outside world is by schooner of the Hudson's Bay Company, which calls twice a year. The *Fort York* from Churchill was eagerly awaited at treaty time but did not materialize—neither an outlook perched upon the roof of the factor's house, nor a scanning from the departing planes, having sighted the longed for cargo carrier.

Friday evening, July 25, saw the completion of work and early Saturday morning was fixed for a take-off to Winisk. Low tides prevented this, the planes being high and dry at the appointed time. They had been tied to shore due to the unsafe anchorage in deep water where the slippery clay bottom failed to hold the light anchors of the planes. Tides and variable winds are two important factors demanding the attention of airmen, who contemplate the use of Fort Severn as a port of call. Timely action on the part of the crew averted a serious mishap to one of the planes that had, with the outgoing tide urged by a wind, drifted from its anchorage down towards the mouth of the river.

Bad weather detained the party until Sunday, July 27, at 3.20 p.m. Pushing off for Winisk the planes skirted the southern shores of Hudson bay, the approach to which is a low-lying flat muskeg area, the last wash of myriads of streams and important large rivers draining extensive sections of the Patricia portion of the District of Kenora.

Countless wild ducks, several white whales and distant ice floes, were visible from the planes. Poor visibility and an approaching dense fog somewhat disconcerted the pilots after forty minutes of flying. As the fog thickened and lowered the planes were lost to the view of each other and an unusually low altitude was taken. An east wind speedily forced the fog into the face of the planes, now completely enveloped. A forced landing on the Winisk river near its mouth was decided upon and while the pilots had limited facts of the hazardous landing conditions certain data accompanied by a map had been obtained at Fort Severn and considered authentic enough to support an even chance on choosing this, in an emergency, as a safe alternative landing spot. To have waited another minute in the case of plane 113, and likewise 114, would have been flirting with grave danger, if not death, and Flight Lieutenant Harding turned the plane's nose into the terrifying fog up the river and somewhat jarringly though safely landed at the foot of long, flat rapids, the occupants of the plane expressing keen anxiety concerning their companions lost to view for some time. But within three minutes the fog was again pierced and down bolted 114, in a similar fashion, to a point perilously near 113. At that moment the flood gates of heaven opened and a lashing wind set up. As the fog lifted and the downpour lessened, only to be repeated with double force and fury a few minutes later, an opening in the fog between the points of two islands occurred and the party with a sigh of relief discerned, dimly silhouetted in the background on the mainland a few miles up the river, beyond the rapids, the little cross tipped Catholic Mission and the flag-tipped official residence of the Hudson's Bay Company.

On the left were faint outlines of teepees from which there shortly issued several agile Indian braves who though never having seen nor heard the flying fire canoe were aroused by the swish of the air paddle, the whirr of the motor, and rushing down the sticky, slippery, slimy clay banks, leaped into their responsive transports, with their trusty blades, long spruce poles and tracking ropes, and were soon shooting the rapids to satisfy a keen longing to gaze on the expected flying machines and to appease their minds troubled by the thought that a landing at this location spelt disaster.

These Winisk Indians were joyfully welcomed by the commissioners, who with Dr. O'Gorman were paddled, poled and tracked up the treacherous rapids some four miles to the looked for post. The company's factor, John Harris,

courteously received the Government officials and accorded all *carte blanche* possession of his tidy though restricted quarters. It was he who had mapped out a landing course and planted buoys for safe anchorage and take-off for sea planes about five miles above the post, which site later on the pilots were forced to use and record as the only safe one for this post.

Winisk post presents a dreary and depressing picture, situated as it is in a lonely position on the west bank of the Winisk river about four miles south of Hudson bay. This river takes its rise within a few miles of the headwaters of the Attawapiscat river and flows northerly and easterly three hundred miles into Hudson bay; like other rivers flowing into the bay it is subject to tidal conditions and has at its mouth a series of deltas that are being annually transformed. The clay soil with the constant lashing of the tidal waters and the recurring spring floods produces a handicap to shore activities.

The approach to the post both from up and down the river is via rapids navigated with difficulty only by the primitive though indispensable canoe.

Early Monday morning, July 28, the commissioners summoned the Indians, 85 in all, and hoped to conclude the work in order to take off on Tuesday. The band chose three leaders to act in treaty negotiations, Xavier Patrick, John Bird and David Sutherland. The interpreters were Rev. Father Martel and William Oman. These Indians possessed more knowledge of the terms and conditions of Treaty No. 9 than many members of other bands who had been admitted twenty-five years ago, and consequently discussions were shorter and explanations fewer. When the commissioners attempted to elucidate a certain point they were met by the interruption politely made, "We know perfectly all about this treaty."

Adhesion was readily signed by the contracting parties, the commissioners first and leaders second, followed by the witnesses, Rev. L. P. Martel, O.M.I., J. Thos. O'Gorman, M.D., John Harris, Hudson's Bay Company, and R. T. Wheeler, Clerk.

Elections resulted in Xavier Patrick as chief and David Sutherland, councillor. Dr. O'Gorman presented the Union Jack to the chief, appropriately explaining its significance, and the commissioners pinned upon the elected ones their medals and counselled them in divers matters.

A feast of ample proportions was tendered them but before partaking, these humble teepee inhabitants, with a Christian faith, approached the missionary requesting that they gather in God's Name and thank Him for all His goodness and seek His blessing.

Although poor in appearance and limited in possessions they did not complain. They found their means of sustenance while camping at this forlorn post sorely restricted. Fish was scarce, provisions were not in plenty and the general condition of the Indians demanded their early return to the bush where they could gain a livelihood.

A reserve, comprising 17 square miles, was selected at the old abandoned outpost of the Hudson's Bay Company up the Winisk river at its junction with what is known as the Asheweig river. This old outpost was formerly called "Sousahagen," by which name the Indians now identify Asheweig river.

The reserve shall be so laid out as to comprise a width of three miles, or $1\frac{1}{2}$ miles on each side of the west branch of the Asheweig river where it empties into or joins the Winisk river, and to follow along both sides of the Asheweig river to a sufficient depth, approximating 5.66 miles, to afford a total area of 17 square miles. While the reserve is 150 miles from the post it was chosen, as claimed by the Indians, because it is said to be a well wooded and good hunting section.

All day Tuesday, July 29, torrential rains fell, filling to overflowing the conglomerate holes of the boggy flat about the post which offers a haven to the wearied Indian trader. Black, low-hung clouds encircled the high heavens and Old Sol himself seemed to have forgotten the powers of penetration, while the term "visibility" was lost from the airman's vocabulary. To fly on such a day

was impossible and the morrow offered but a faint hope for improvement as was indicated by Rev. Father Martel.

This missionary's humble bearing and quiet assurance greatly impressed the official party. From the moment of his greeting until his "au revoir" he was a human barometer predicting the weather, approximate or remote, with an uncanny exactitude. His philosophy, ripened by years of experience, and instinctive powers unostentatiously exercised, to discern and disclose the secrets of the elements, are of incalculable value to those who travel by paddle or plane. For the magnanimous treatment he accorded the party and the important data he so generously furnished the commissioners record their thanks.

On Wednesday, July 30, at 11.45 a.m., the party left the post for the planes below the rapids but found them high and dry upon the beach supposed to be unaffected by the tides. Slight repairs to the screws in the pontoons were undertaken and after exhausting efforts the crew, assisted by Indians, released and floated the planes in the hope of getting the advantage of a break in the weather for the trip to Attawapiscat on James bay. Unfortunately in the attempt to take-off from these waters, safe in appearance though treacherous in reality, damage was done to the pontoon of plane 113 and a delay of another day ensued. All luggage was unloaded and taken by canoe ten miles up stream to the safe anchorage previously selected by Mr. Harris. Repairs under the most adverse conditions were completed by Thursday night when the planes took off for the Harris buoys where they tied up for the night, another rainy one.

On Friday, August 1, at 8 a.m., the whole party, except the mechanics, who tented on the shore near the planes, left by canoe and occupied two and a half hours in reaching the machines, although the distance is about five miles, the intervening rapids requiring stiff paddling, poling and tracking.

A start for Attawapiscat was made at 11.45. A coastal course by the Hudson bay around cape Henrietta, and then down the west shore of James bay, as originally intended, was abandoned because of the hazardous fogs about the cape, where it was learned that up to the middle of August the ice packs render flying most uncertain. A cross-country flight was substituted and after about three hours over country, much of which was terrifying from the viewpoint of a possible forced landing, Attawapiscat was reached.

ATTAWAPISCAT

This post, situated at the mouth of the Attawapiscat river, has, like other James bay posts on the west side, the appearance of a modern community with its long line of coastal buildings, including those of the two trading companies, and the Anglican and Catholic Missions with the framework of a pretentious new church. An unique sawmill is operated by the lay brothers of the Catholic mission on a dual power system of gasoline and steam, this mill being the most northerly in the province of Ontario and used exclusively for the cutting of lumber for church purposes.

Rev. Father Belleau and his assistant, Father Langlois, ever solicitous for the welfare of the Indians, wholeheartedly co-operated with the commissioners.

The Attawapiscat Indians, formerly members of the Albany band, were detached from the latter and aggregated into a separate band at treaty payment last year. The number in all is 583, but of these only 100 met the commissioners, the others having decamped for their hunting grounds prior to the belated arrival of the planes.

Their chief, Xavier Chookomoolin, with the three councillors, Jacob Chookomoolin, Jacob Gull and John Nakooche, remained to receive the annuities for the absentees and to discuss the question of the selection of a reserve.

Commissioner Cain joined with Paymaster Awrey in paying annuities all day and at night conferred with the Indians on the reserve question, the determination of which, both in respect of its size and location, as indicated in the report of last year, was deferred until this year.

When Treaty No. 9 was signed the Albany band was admitted and a reserve, based upon the numbers then enrolled, 140 square miles, was selected at the mouth of the Albany river, duly surveyed by O.L.S. James S. Dobie, and shown on plan dated April 12, 1913, but never approved by the Ontario Government. The present membership of the Albany band (which excludes the Attawapiscat Indians formerly of the Albany band) is 688 and on an accurate mathematical basis they are entitled to 137.6 square miles, whereas the reserve they already hold, and over which they have exercised ownership, contains as above stated 140 square miles.

After mature consideration the commissioners deemed it advisable and in the interests, both of the Indians and the Crown, that such reserve remain intact and that the area to be allotted to the Attawapiscat band constitute the difference between the aggregate allotment to which both bands are entitled and the 140 square miles. The total membership of the two bands is 1,222, which, on the basis of one square mile for each family of five, is equivalent to 244.4 square miles, and this reduced by 140 square miles is 104.4 square miles, the size of the reserve allocated to the Attawapiscat band, or only two and a fifth square miles less than the exact mathematical requirement.

The Attawapiscat Indians accepted the arrangement with evident satisfaction and expressed thanks for the sympathy with which their requests were considered.

The reserve was selected at the junction of the Little Eqwan river and the main Eqwan river to start about $4\frac{1}{2}$ miles west of the said Junction and to consist of a block 6 miles wide and 17.4 miles long, extending down the main Eqwan and as far as possible including 3 miles on each side thereof. This inland site was justified by the Indians' contention, vouchsafed by others, that the coast trapping restricted mostly to foxes, had been lamentably diminishing during late years and the selected area would afford mixed trapping, good fishing and a centralized meeting point for the much scattered members.

Many questions, beyond the purview of the commissioners were presented, and while a sympathetic hearing was given the Indians they were referred to the resident Indian agent, Dr. Hamilton of Moose Factory, who had already paid the band an official visit and contemplated another at an early date.

The post factors, Mr. Ambrose and Mr. Graham, extended the usual courtesies to the party.

The elimination of so many individual annuity payments by making them through the chief and councillors, and the use of these representatives as the sole medium through which the reserve decision was reached, saved two days here and the work was completed on Saturday night, August 2.

Following church service on Sunday, August 3, the planes hopped off for Fort Albany and arrived there in less than an hour.

FORT ALBANY

The commissioners and Dr. O'Gorman registered at the Hudson's Bay Company, and the crew at Revillon Freres, Mr. Watt being the capable factor at the former and Mr. Horne at the latter.

The spiritual welfare of the Indians is amply provided for by the Anglican and Roman Catholic Missions. Rev. Mr. Northam, who last year was seriously ill and had to be transported by treaty plane to Sudbury for successful hospital treatment, warmly received the commissioners and during their stay at the post gave a delightful entertainment in the school house for the Indians and members of the party. By lantern slides and movie pictures he depicted "The Epic Indian Treaty Party Trip of 1929," and gave evidence of his whole-souled interest in his work.

The Roman Catholic Fathers, Belledeau and Decaire, are in charge of a large Indian school and have a convenient church and other substantial buildings. Due to spring floods their school and mission houses were flooded to the

tops of the lower stories in 1928, and in constant dread of a recurrence the fathers have undertaken the erection of a more commodious school in addition to hospital and farm buildings up the river on the opposite side, about four miles, on higher and more dependable ground. Here they have a creditable sawmill and have completed a cement foundation for the new school, 100 feet by 40 feet, and an addition for a hospital 40 feet by 40 feet. They are methodically proceeding towards the establishment of an industrial farm, where they hope in due time to train the Indian youths in the art of producing for self preservation.

The commissioners were grateful guests at a splendid dinner at the mission where fine green vegetables from the mission's garden, and beautiful fresh milk from the first cows seen on the trip, were served.

On August 4 over four hundred Indians were paid and hearings given to many concerning matters within the domain of the resident Indian agent. The same plaintive tones as heard at most of the posts were poured out here, that the hunt was poor, the fish scarce, and earning a living hard. Appeals for relief measures had been previously investigated and provided for by Dr. Hamilton.

The program at Fort Albany was concluded late Monday night and on the following morning, August 5, after waiting until 11 o'clock for a clear sky, the machines hopped off and, with a favourable wind, in fifty minutes reached Moose Factory, the last port of call, at the bottom of the bay.

MOOSE FACTORY

Moose Factory and Fort Albany have a wealth of history and tradition behind them. Captured and recaptured in the latter part of the 17th Century, in the hectic struggle between the English and French, these posts remain sturdy examples of the great business venture undertaken in 1670 and carried on for over two hundred and fifty years by the great Hudson's Bay Company, whose history is replete with romance, adventure and mystery, and whose extending ramifications in diverse departments of the economic world are traceable to their original trading with the Indians.

The prominence of Moose Factory, hitherto largely related to the fur trade and the company, is now being accentuated and made permanent. It is the proposed terminus of the extension to the Temiskaming and Northern Ontario Railway, a provincially owned and operated railway, the extension of which will be completed within a year.

The commodious buildings of the Hudson's Bay Company are situated on Moose island, extending along the bank of the river for a mile or more, with the Anglican church and Indian school at the upper end. In charge of this mission is Rev. James Blackburn, B.A., recently installed. His experience amongst and association with the Indians of Western Canada serve him splendidly. He showed a kindly interest in the visit of the treaty party and attended in person at treaty payments. Although there is no Catholic Mission here a worthy representative of the Oblate Fathers was met in the person of Rev. J. E. Saindon, who is general director of all the Order missions on the bay.

Revillon Freres have their post on the mainland of the main branch of the Moose river, their buildings paralleling the shore line back about 150 feet for over half a mile.

Law and order are preserved: the very presence of the Royal Canadian Mounted Police conduces towards a healthy respect for all that is fair and just.

The appointment by the Department of Indian Affairs of a resident Indian agent, a medical man of many years' standing, was a commendable one, and will in the opinion of the commissioners offer a solution for many of the Indian problems arising in and about James bay that are difficult to understand, much less solve, at such long range as is the capital from the scene of wholesale, if not always wholesome, demands. The Indians consider the appointment not merely a gallant gesture but a practical step in studying their needs at first hand. The boat furnished for the Agent's use receives the highest praise and is expected

in process of time to have an important effect for good upon the morale of the Government wards.

Tuesday afternoon, August 5, and Wednesday morning, August 6, were spent in paying annuities to the band members whose total registration is 360, a number of whom receive payments at other points whither they wander, some in search of work, others through a desire for shifting scenes, and a percentage to taste of the fruits of older civilization.

The developments during and resulting from the building of the railway to this historic post will, it is hoped, provide opportunities, to such of the Indians as are willing and industrious, of earning their livelihood and of gaining an independence which of late, due to the diminishing game in their narrowed area, is impossible.

By becoming virtually an inland seaport Moose Factory, with its prospective tourist and summer trade and the contemplated extensive construction work covered by the expanding program of the Ontario Government, will afford openings for the dexterous canoe man, the ready guide and the tourist's handy man.

An inspection of the Indian agent's boat, and a cruise of two hours in company with Dr. Hamilton, occupied the time of the commissioners until five o'clock when the party resumed its journey to Remi lake, which was reached in less than two hours on the evening of Wednesday, August 6, just two days behind the original schedule.

On Thursday, August 6, needed repairs to the engines were made by the mechanics, assisted by another member of the Royal Air Force, who fortunately was attached to the photographic planes operating in this region and temporarily stationed at Remi Lake. Friday morning, August 8, the planes took off for Trout Lake near North Bay, and, with floating mists at times harassing and low visibility, landed about noon. Immediately after dinner the party, excepting Commissioner Cain, moved off for Ottawa Air Port at Rockcliffe, and arrived the same afternoon, Commissioner Cain in the meantime having crossed Trout lake in canoe to North Bay, from which point he left for Toronto, reaching there Saturday, August 9, 1930.

Thus ended a decidedly interesting and important air trip which included practically a complete circuit of the hinterland of Ontario and an official visit to every Indian encampment along and north of the Albany river and on the coasts of Hudson bay and James bay in the province of Ontario, undertaken by the Department of Indian Affairs in the interests and welfare of the Indians inhabiting that extensive area.

PASSING OBSERVATIONS

It is worthy of remark that the general health of the Indians is good. Excluding tubercular trouble appearing in most bands their disorders were more or less negligible and their appearance in the main very respectable.

Contrary to occasional opinion, expressed by certain critics, magazine writers, feigned historians and pseudo experts on Indian matters, the early extinction of the Indian is not particularly evidenced in the Indians under Treaty No. 9, whose numbers approximate four thousand. These Indians during the last fifteen years, according to official figures, show a natural increase of fourteen per cent, thus disproving the theory that, because of alleged unchecked epidemics, the lack of ready applied medical science, with its modern conveniences and varied adaptations, extermination of this nomadic race is rapid. While the loss of close contact with medical and surgical science is regrettable though unavoidable, the periodic visits by officials of the Department of Indian Affairs, and their instructions on the care and cleanliness of the body and on general habits, the wide open spaces, exhilarating air and the carefree, enervating, nonchalant existence, are sufficiently compensating factors to maintain a fair balance in the scales of life and mortality.

Throughout the entire trip the party was accompanied by a medical man, sent under the directions of the Department of Indian Affairs. Dr. Mitchell was associated with the work from Remi Lake to Fort Hope, Dr. Day from Fort Hope to Osnaburgh, and Dr. O'Gorman for the balance, and the greater portion of the trip, covering all the newly enrolled Indians. Dr. O'Gorman proved a capable, painstaking and versatile advisor, not only in matters of his profession but in others of interest and value to the flying officials.

All three professional men have had a wide experience with Indians and their methods, though differing one from the other, of instructing and advising meet with a ready response.

MEANS OF LIVELIHOOD

Even in the far distant unsettled and unorganized sections the Indians, solely dependent upon the chase for a means of livelihood, are facing real trials in their efforts.

As civilization on the wheels of industrial and commercial progress pushes back the frontier the trapping fields are invaded and the product of the hunt diminished.

The commissioners, while fully cognizant of the continued perplexing problem confronting the Government, and students of sociology in respect of a satisfactory system of assimilation, always with due regard for the Indians' instinctive traits, believe that an intensive effort at a not too distant date should be made to teach the Indian to apply himself to the production of certain food-stuffs to provide at least for his own sustenance.

From observations during the last two summers the conclusions drawn indubitably point to the feeling that if the summer weeks, and in cases months, spent about the various posts by the Indians were devoted to the task of gardening small plots of ground upon the reserves the source of supply would be enlarged, the cry of starvation reduced, the demands made on the Government for relief lessened and a spirit of independence developed. Some church missions in the far-flung sections are already, with an extended vision begotten of a wide experience, admitting the advent of the day when necessity will compel the Indian to sustain himself partly by tilling the land, rather than attempting to do so wholly by the forest and stream, and are establishing farms in connection with schools, thus providing reasonable means of teaching and encouraging the Indian in cultivating and producing from the soil.

Unless and until the Indians affect some active interest in this direction they should be discouraged from loitering too long at summer encampments where their sources of supply are limited, and urged to return within reasonable time to their hunting grounds where they shall not face starvation.

GENERAL SUMMARY

The commissioners in conclusion respectfully submit the following recommendations, including certain of those covered by their report of last year:—

- (a) That the surrender made in the year 1905 by the Indians of such portion of the territory, then in the Northwest Territories and now within the province of Ontario, be approved and confirmed.
- (b) That the following reserves situated in the area referred to in the preceding paragraph (a) be approved and confirmed:—
 1. Osnaburgh, north side Albany river—53 square miles.
 2. Fort Hope—100 square miles.
 3. Marten Falls—30 square miles.
 4. Fort Albany—140 square miles.
- (c) That all the new reserves hereinafter roughly described and shown on accompanying map be approved and confirmed.

FOR TROUT LAKE INDIANS

Trout Lake.—Reserve 1, lying on the east and southeast shore of Trout lake, where it empties into the Fawn river, and on both sides thereof along the shore of said lake for $3\frac{1}{2}$ miles more or less and back therefrom to a distance of approximately 12 miles, always, as far as possible, at a distance of $3\frac{1}{2}$ miles from the shore on each side of the main channel of the said Fawn river, containing 85 square miles more or less.

Sachigo Lake.—Reserve 2, lying at the outlet of Sachigo lake where it empties into Sachigo river and extending on both sides thereof along the shore of the said lake $1\frac{3}{4}$ miles more or less and back therefrom to a distance of approximately 4 miles, always, as far as possible, at a distance of $1\frac{3}{4}$ miles from the shores on each side of the main channel of the said river, containing 14 square miles more or less.

Wunnumin Lake.—Reserve 3, lying at the southeast end of Wunnumin lake where it empties into the Winisk river, $4\frac{1}{2}$ miles in frontage by 6 miles in depth, the area to be largely to the south side, the north boundary to be so extended as to include sufficient area on both sides of the river, containing 27 square miles more or less.

FOR CARIBOU LAKE INDIANS

Caribou Lake, lying on the south shore of Caribou lake, slightly to the left or westerly end, so that sufficient frontage of a somewhat extended bay will be included, the dimensions to be approximately 8 miles long by 4.4 miles wide.

FOR DEER LAKE BAND

Sandy Lake Narrows, lying at the Narrows, being a stretch of water lying between Sandy lake and lake Oo-pe-te-qua-yah, the reserve to comprise 10,624 acres, or approximately 17 square miles, to be laid out in a rectangle having a width, so far as possible, of at least 3 miles with sufficient depth to satisfy the acreage requirement.

FOR FORT SEVERN BAND

Fort Severn, at the mouth of the Beaverstone river, where it joins the Severn river, $1\frac{1}{2}$ miles frontage on each side of the Beaverstone river and back 5 miles more or less from the mouth, the said river being shown on map No. 20 a., issued in 1926 by the province of Ontario, as "Beaverstone," although called "Castorum" by the Hudson's Bay Company and "We-ke-mow" by the Indians, containing 15 square miles more or less.

FOR WINISK BAND

Winisk, situated at the old outpost of the Hudson's Bay Company up the Winisk river at its junction with what is known as the Asheweig river, the reserve to be so laid out as to comprise a width of 3 miles, or $1\frac{1}{2}$ miles on each side of the west branch of the Asheweig river, where it empties into the Winisk, and to follow both sides of the said Asheweig river $5\frac{2}{3}$ miles, or such distance as will afford a total area of 17 square miles more or less.

FOR ATTAWAPISCAT BAND

Attawapiscat, situated at the junction of the Little Eqwan river with the main Eqwan river, to start on the main Eqwan river at a point $4\frac{1}{2}$ miles west of the said junction and to comprise a width of 6 miles, or 3 miles on each side of the river, and a depth down the river of approximately 17.4 miles, containing 104.4 square miles more or less.



SIGNATORIES AND WITNESSES AT WINISK



SIGNING OF ADHESION AT WENDIGO



TREATY PARTY AT REMI LAKE



GROUP OF INDIANS ENROLLED AT FORT SEVERN

- (d) That any mining claims staked out and recorded, within any of the above mentioned unsurveyed reserves, subsequent to the date of the signing of the Adhesion covering the areas, shall in all respects be subject to the provisions of Ontario Statutes 1924, chapter 15, 14 George V, which defines and protects the rights of the Indians.
- (e) That early steps be taken to have the newly selected reserves regularly surveyed by an Ontario land surveyor and plans thereof lodged in the necessary record offices of the Dominion of Canada and the province of Ontario; furthermore that ample notice be given the chief of each band of the approximate time that the surveyor will be upon the ground to survey the allotment for reserve or reserves and permit accredited representatives of the band to assist in selecting and establishing the lines and permanent posts.

Accompanying this report and being part and parcel thereof are:—

(1) Map of area covered by Adhesion to Treaty No. 9, with explanatory legend.

(2) Pictures:

- (a) Signing of Adhesion at Wendigo.
 (b) Group of Indians enrolled at Fort Severn.
 (c) Signatories and witnesses at Winisk.

The commissioners beg to submit herewith the original Adhesions to Treaty No. 9, signed in triplicate.

All of which is respectfully submitted by

Your obedient commissioners,

W. C. CAIN,
 H. N. AWREY.

September 29, 1930.

BUILDINGS

The following are the buildings erected during the fiscal year of 1929-30.

Gordon's Indian Residential School, Punnichy, Sask.

Cecilia Jeffrey Indian Residential School, at Kenora, Ont., which was started last year, was completed.

Brandon Indian Residential School, Brandon, Man.

Beauval Indian Residential School, Beauval, Sask. Building operations were started this year.

Old Sun's Indian Residential School, Gleichen, Alta.

Alert Bay Indian Residential School, started last year, was completed.

A new wing was built to the St. Bruno's Mission, near Grouard, Alta.

Day Schools have been erected at the following places:—

Oka Indian Day School, P.Q.

Sand Point Indian Day School, Ont.

Gull Bay Indian Day School, Ont.

Skidegate Indian Day School, B.C.

Day School and Teachers' Residence at Lake Manitoba, Man.

Big Eddy Day School, Man.

Extensive improvements were made to the Kenora R.C. Indian Residential School, Kenora, Ont., and to the Pine Creek Indian Residential School, Man.

Other buildings were erected as follows:—

Barn at Cross Lake, Man.

Residence for the Principal at McKay Indian Residential School, Man.

Outbuildings at the St. Phillip's Indian Residential School, Sask.

Outbuildings at the Cowesses School, Sask.

Outbuildings at St. George's Indian Residential School, Lytton, B.C.

Chapel at St. George's Indian Residential School.

Laundry at the Qu'Appelle Indian Residential School, Sask.

BRIDGES, WATERWORKS, SEWERAGE AND IRRIGATION SYSTEMS, ROADS, DYKING AND WHARVES

BRIDGES

Bridges have been repaired or reconstructed on the following reserves: Rolling River, Man., Walpole Island, Ont., Casca reserve, B.C.

DYKING

Protection work and dyking was carried out on the Whycocomagh reserve, Nova Scotia.

IRRIGATION SYSTEMS

Irrigation systems were constructed or improved on the following reserves in British Columbia: Anderson Lake, Bridge River, Yale No. 1, St. Mary's No. 1, Soda Creek, Ashcroft, Roberts Creek, Cayuse Creek No. 2, Dog Creek, Canim Lake No. 1, Alkali Lake, Lytton No. 15 and 18, Lower Nicola, North Thomson, Kamloops, Nicomen.

ROADS

Main roads and highways are being gradually constructed or improved in co-operation with the provincial Department of Highways on the following reserves:—

Province of Ontario.—Manitoulin Island, Wiwemikong, Tyendinaga, Rama, Alnwick, Muncey, Rice Lake, Gore Bay, Six Nations, Moravian, Oneida, Golden Lake, Walpole Island, Kettle Point, Sarnia, Cockburn Island, West Bay, Saugeen, Cape Crocker, Mud Lake and Scugog.

Nova Scotia.—Bear River, Scarsdale, Shubenacadie, Chapel Island, Whycocomagh, Eskasoni, Malagawatch.

New Brunswick.—Tobique.

Manitoba.—Dog Creek.

Saskatchewan.—Sweet Grass and Peguis.

British Columbia.—Cowichan, Burrard, Stuart Lake, Hope No. 4, Cheslath, Tache, Fraser Lake, Lillooet.

Quebec.—Ouiatchouan, Temiskaming, Seven Island, Doncaster, Caughnawaga, Restigouche, Abenakis, Oka, Lorette, Bersimis, and Maniwaki.

DRAINAGE SYSTEMS

Drainage systems were constructed on the Abenakis reserve in Quebec, and Walpole Island, Ont.

WATER WORKS

Water work systems were constructed on the Casca reserve, Nicomen and Bella Bella, B.C.

WHARVES

A new dock was erected at Walpole Island, Ont.

ELECTRIC LIGHTING SYSTEMS

Electric lighting systems were installed for the lighting of the Bella Coola and Metlakatla Indian Villages, B.C.

SURVEYS

Listed hereunder are the principal surveys and investigations conducted by this department during the fiscal year ending March 31, 1930.

NEW BRUNSWICK

The new Devon Indian reserve was subdivided for Indian occupation and levels taken to determine the location of roads, drainage and water systems.

A valuation was made of the water front of lot 6, Eel River, in connection with the purchase of this lot for the Eel Ground reserve.

QUEBEC

The final right of way for the new Châteauguay road through the village of Caughnawaga was decided upon and purchased.

An investigation was made in connection with flooding damages on the Oujatchouan Indian reserve.

The recently purchased lot No. 9, Dundee, for St. Regis reserve was subdivided for Indian occupation and the allotment of this subdivision was arranged.

A survey was made of the school lot at the Pierreville reserve and levels were taken for the purpose of locating drainage and designing works to protect the river banks from erosion.

ONTARIO

A survey was made in the Lac Seul Indian reserve to determine the timber lease boundaries.

A survey was made in Cayuga to determine the extent of lands sold in the Jones Tract.

MANITOBA

New reserves were located and surveyed at Pukatawagan, High Rock and Brochet.

Subdivision survey for the purpose of Indian occupation was made in the Oak River Indian reserve.

SASKATCHEWAN

A new reserve was located and surveyed at Southend.

A subdivision survey for Indian occupation was made in the Standing Buffalo Indian reserve.

ALBERTA

Subdivision surveys and valuations were made for the purpose of sale of the Peace River Crossing Indian reserve No. 151, William McKenzie Indian reserve No. 151K and Beaver Indian reserve No. 152.

Valuations were made for the purpose of sale of the following:—

John Felix Tustawits No. 151 B.
 Taviah Moosewah No. 151C
 Alinekwoonay No. 151D
 Duncan Tustawits No. 151E.
 David Tustawits No. 151F.
 Gillian Bell No. 151G.
 Louison Cardinal No. 151H.
 Neepee Chief No. 152A

A subdivision survey for Indian occupation was made in the Driftpile Indian reserve No. 150.

BRITISH COLUMBIA

Subdivision surveys for Indian purposes were made in the Greenville reserve and Sechelt Indian reserve No. 2.

The boundaries of Quesnel Indian reserve No. 1, Rich Bar No. 4, Mission No. 2 and Sechelt No. 2 were re-established.

The following new reserves were located and surveyed for the Tsimpsan band:—

Indian reserve No. 26, being lot 3979, range 5, Coast District	
“ “ 27 “ 2589 “ 4 “	
“ “ 28 “ 2588 “ 4 “	
“ “ 29 “ 3978 “ 5 “	
“ “ 32 “ 5434	Cassiar District
“ “ 38 “ 3969 “ 5	Coast District
“ “ 39 “ 3968 “ 5	“
“ “ 45 “ 3970 “ 5	“
“ “ 46 “ 3971 “ 5	“
“ “ 49 “ 3966 “ 5	“
“ “ 62 “ 3977 “ 5	“
“ “ 74 “ 3937 “ 5	“
“ “ 75 “ 7180 “ 5	“
“ “ 76 “ 7187 “ 5	“
“ “ 77 “ 7181 “ 5	“
“ “ 78 “ 7186 “ 5	“
“ “ 79 “ 7185 “ 5	“
“ “ 80 “ 7184 “ 5	“
“ “ 81 “ 7183 “ 5	“
“ “ 82 “ 7182 “ 5	“
“ “ 87 “ 3967 “ 5	“

and also lots 3972, 3973, Range 5, Coast District and lots 4862, 4863 and 4864, Cassiar District.

Cut off surveys were made in the Tsimpsan Indian reserves Nos. 2, 4 and 19.

A survey was made in connection with the Industrial School lot at Coqua-leetza.

Surveys were made of the following new reserves:—

Hihium Lake Nos. 6A and 6B.
 Lytton Indian reserve No. 31.
 Boothroyd Indian reserves Nos. 5B and 5 C.
 McDonald Lake No. 1.
 Atlin No. 9.
 Jennings River No. 8.
 Teslin Lake No. 7.

YUKON

Surveys were made to establish new reserves at Teslin Post and Nesutlin.

SUMMARY OF INDIAN AFFAIRS BY PROVINCES AND TERRITORIES

The local administration of Indian lands, on the reserves scattered throughout the Dominion, is conducted through the Department's agencies, of which there are in all 116. The number of bands included in an agency varies from one to more than thirty. The staff of an agency usually includes various officers, in addition to the agent, such as the medical officer, clerk, farm instructor, field matron, nurse, constable, stockman, etc., according to the special requirements of the agency in question. At many of the smaller agencies in the older provinces, where the Indians are more advanced, the work is comparatively light, requiring only the services of an agent. The work of the agencies is supervised by the department's inspectors. There are Indian Commissioners at Regina and Victoria, acting in a supervisory capacity for the Prairie Provinces and British Columbia respectively.

ONTARIO

Agencies.—The Indian Agency offices in Ontario are located as follows:—Brantford, Cape Croker, Chapleau, Chippewa Hill (Saugeen), Christian Island, Deseronto, Fenella (Alnwick), Fort Frances, Gore Bay, Hagersville, Highgate, Kenora, Longford Mills, Manitowaning, Moose Factory, Muncey, Parry Sound, Peterborough (Rice and Mud Lakes), Port Arthur, Port Perry, (Seugog), Ruby (Golden Lake), Sarnia, Sault Ste. Marie, Sutton West (Georgina and Snake Island), Sturgeon Falls, Thessalon and Walpole Island.

Tribal Origin.—The great majority of the Indians of Ontario are Ojibwas, and are of Algonkin stock. The Oneidas of the Thames, the Mohawks of the Bay of Quinte, the Mohawks of the Parry Sound district, and the Six Nations of the Grand River, are of Iroquoian stock. There is a band of Pottawattamies at Walpole Island, and Delawares at the Carodoc agency; these are of Algonkin stock.

Occupations.—The Indians in the western and central parts of Ontario engage largely in farming. The reserves generally are well suited to this purpose and the activity of the department's field agents has resulted in a steady improvement both in the methods of operation and the results achieved. The success achieved by the returned soldiers of this province has been especially creditable and they are rapidly developing prosperous communities.

During the summer months Indians find a profitable source of income as guides and canoe-men. Many are employed at various industries and trades, while railway and navigation companies employ a large number. As a rule they are excellent bushmen and many find employment in the various lumber camps. There is still an excellent market for snowshoes, canoes and moccasins, and these are usually manufactured by the other members of the community.

The women also have many sources of income; some are employed as domestics; others support themselves by making baskets and fancy work. In certain districts berry-picking is an important item and furnishes considerable income.

Dwellings.—The great majority of the Ontario Indians have comfortable farmhouses which compare very favourably with those of their white neighbours. Many own houses of brick and stone, although in the outlying and more remote districts the old log houses are in the majority. In the more settled districts the Indians have followed the examples of the whites and both houses and farm buildings are comfortable and of excellent construction.

New Ontario.—In the remote parts of Ontario hunting and fishing are still the chief sources of livelihood. Acting as guides and canoe-men during the summer months adds considerably to their income. While agriculture is not

carried on to any extent, most of the bands grow considerable crops of potatoes and vegetables. They are, of necessity, more or less nomadic and consequently live in tents most of the year. This condition will greatly change as civilization progresses.

QUEBEC

Agencies.—The following agencies are included in the province of Quebec: Becancour, Bersimis, Caughnawaga, Gaspé, Lake St. John, Lorette, Maria, Mingan, Oka, River Desert, Restigouche, Seven Islands, St. Augustine, St. Regis, St. Francis, Temiskaming and Viger.

Tribal Origin.—The principal tribes found in Quebec are: Iroquois at Caughnawaga, Lake of the Two Mountains, and St. Regis; the Hurons of Lorette are also of Iroquoian stock; the Montagnais, who are of Algonkin stock, at Bersimis, Mingan, Lake St. John, Seven Islands; the Abenakis, also of Algonkin stock, at Becancour and St. Francis; the Micmacs, also of Algonkin stock, at Maria and Restigouche; and the Malecites, also of Algonkin stock, at Viger.

In the agricultural districts of the province the Indians are developing a keener interest in farming operations and are making decided progress. In the Gaspé peninsula the Indians find employment in the lumber camps and mills, but on the north shore of the gulf, fishing, hunting and trapping are still the principal sources of income. In the northern part of the province lumbering is the chief pursuit. One of the principal industries of the Indians of Quebec is making baskets, and many of the Indians spend the summer months at the resorts in order to dispose of the baskets, lacrosse sticks, racquets, moccasins, etc., to the tourists. Some of them, particularly in the Saguenay district, act as guides and canoe-men.

Dwellings.—In the older settled districts of the province the Indians own many excellent stone and brick houses. Generally speaking, the buildings are almost all of good construction, comfortable and sanitary. In the more remote districts, where hunting and trapping are still the principal occupations, the Indians necessarily live in tents during the greater part of the year.

The North Shore.—Along the north shore of the Gulf of St. Lawrence, the Indians have been taking a marked interest in the fishing industry. At Mingan, Natashkwan, Romaine, St. Augustine and Moisie, the fishing is under departmental supervision. Salmon and cod are the principal marketable fish, and are a source of considerable income to the Indians. The land is not suitable for extensive cultivation, but many of the Indians have very creditable gardens.

NEW BRUNSWICK

Agencies.—There are three agencies in the province of New Brunswick, the Northeastern located at Richibucto, the Northern located at Perth, and the Southwestern located at Fredericton.

Tribal Origin.—The majority of the Indians of New Brunswick belong to the Micmac race, which is of Algonkin stock. In addition to these there are some bands of Malecites, also of Algonkin stock.

Occupations.—In the Northeast division the Indians are mostly engaged in fishing, hunting and trapping. Some farming is carried on, and the Indians have rather tended to increase their interest in this regard.

The lumbering industry employs quite a large number and the Indians all through the eastern provinces have become very proficient in the lumber camps, on the river drives and in the mills. In the northern division there is less, farming carried on, and the Indians during the summer months find employment generally as day labourers. In the Southern division they support themselves chiefly by the manufacture and sale of Indian wares.

NOVA SCOTIA

Agencies.—There are eighteen Indian agencies in the province of Nova Scotia, namely; Yarmouth, Digby, Shelburne, Lunenburg, Annapolis, Kings, Windsor, Shubenacadie, Halifax, Cumberland, Colchester, Pictou, Antigonish-Guysboro, Richmond, Inverness, Victoria, Sydney and Eskasoni.

Tribal Origin.—The Indians of Nova Scotia are of Algonkin stock, and bear the distinctive name of Micmac.

Occupations.—They follow various occupations, but, as a rule, do not confine themselves to any particular one. Many of them cultivate the land with indifferent success, but as there are exceptions in almost every case, so it is with our Indians; a few of them are succeeding very well as farmers. The majority of those living near industrial centres usually work as day labourers. Hunting, trapping, and acting as guides for sportmen are favourite occupations, more especially with Indians of middle age. Basket-making and the manufacture of fancy mocassins, etc., are confined mostly to women. A profitable employment among Indians in a few sections of Nova Scotia is the manufacture of hockey sticks.

Dwellings.—With very few exceptions, Indians in Nova Scotia occupy houses of frame construction, well finished on the outside, but unfinished inside. Every settlement, however, has a few comfortable dwellings well finished throughout. Other buildings owned by Indians—barns and storehouses—are mostly of frame construction also.

PRINCE EDWARD ISLAND

Agency.—One agency is sufficient for the purposes of the department in this province, as the total Indian population is only 295.

Tribal Origin.—The Indians of this province all belong to the Micmac tribe, which is of Algonkin stock.

Occupations.—But few of the Indians of Prince Edward Island are farmers. The principal industries are basket-making and fishing.

MANITOBA

Agencies.—The following agencies are included in the province of Manitoba: Birtle, Clandeboye, Fisher River, Griswold, Manitowapah, Norway House, Pas and Portage la Prairie.

Tribal Origin.—The majority of the Indians of Manitoba belong to the Ojibwa race, which is of Algonkin stock. Bands of Swampy Crees are found at the Norway House and Fisher River agencies and in the York Factory district; these are also of Algonkin stock. The Indians located at the Griswold agency are Sioux; there are also Sioux at the Birtle and Portage la Prairie agencies. There is a band of Chipewyans at Fort Churchill; this tribe is of Athapascan stock.

Occupations.—The reserves in Manitoba suitable for extensive agriculture are mainly within the Birtle, Griswold and Portage la Prairie agencies, and generally speaking progress has been satisfactory in recent years.

In the northern agencies the chief occupations are hunting, trapping and fishing. All of the northern Indians are expert guides and canoe-men, and many find employment in this way or with the transport or fur companies.

In the southern and more settled districts many of the younger people seek employment as day labourers, and owing to the high wages, have been fairly prosperous. The Indian women make needle-work, baskets, etc., for which there is a ready market.

Dwellings.—In recent years the Indians have adopted more sanitary methods of living. Their houses are more comfortably furnished and of better construction than formerly. In the north the nomadic life of the Indians does not permit of other than the old-fashioned log house, but even these are being greatly improved and in some cases are being replaced by suitable frame dwellings.

SASKATCHEWAN

Agencies.—The following agencies are included in the province of Saskatchewan: Assiniboine, Battleford, Carlton, Crooked Lake, Duck Lake, File Hills, Ile à la Crosse, Moose Mountain, Onion Lake, Pelly, Qu'Appelle and Touchwood Hills.

Tribal Origin.—The most numerous tribes among the Saskatchewan Indians are the Ojibwas, Swampy Crees, and Plain Crees, which all belong to the great Algonkin stock. In addition to these, Sioux Indians are found at the Assiniboine, Moose Mountain, Qu'Appelle and Carlton agencies, and on the Moose Woods reserve. In the Onion Lake agency there is a band of Chipewyans, who are of Athapascan stock. There are also a few Chipewyan Indians in the Ile à la Crosse district.

The principal occupation of the Indians of Saskatchewan is mixed farming and stock-raising. The close supervision which the department has had over these Indians has greatly improved their methods of farming. Most of the Indians are well provided with machinery of good quality. As a rule they have good stock and suitable houses. In the outlying districts, however, hunting and trapping are still the main sources of income and will so remain until civilization encroaches upon the hunting grounds.

Dwellings.—The dwellings of the Indians on the reserves where farming is carried on are now mostly of frame construction. The out buildings, however, are generally of logs, but even there there has been some improvement.

ALBERTA

Agencies.—The following agencies are included in the Province of Alberta: Blackfoot, Blood, Edmonton, Hobbema, Peigan, Saddle Lake, Sarcee, Stony and Lesser Slave Lake.

Tribal Origin.—The Alberta Indians are of Algonkin stock, with the exception of the Sarcees near Calgary and the Beavers and Slaves in the Lesser Slave Lake agency, who are Apathascan; the Paul's band in the Edmonton agency, who are Iroquoian; and the Stonies, who are of Siouan stock. The Algonkin Indians of Alberta are subdivided into Blackfoot nation, comprising the Indians of the Blackfoot, Blood and Peigan agencies; Plain Crees found in the Lesser Slave Lake, Saddle Lake, and Hobbema agencies, and a band of Ojibwas at Moberly Lake, in the Lesser Slave Lake agency.

The principal occupations of the Indians of Alberta are farming and stock-raising. Almost all the reserves in the settled districts of the province have large herds of horses and cattle.

In the northern parts of the province hunting and trapping are still almost the sole sources of income; there is practically no farming carried on and the construction of steamers on the Peace and Athabasca rivers, and of the railways to Peace River Crossing and Fort McMurray, have greatly lessened the wages of the Indians with the trading companies and transports.

Dwellings.—In the southern part of the province the dwellings and farm buildings are of excellent construction and quality. Almost all the reserves where extensive farming is carried on boast of up-to-date modern dwellings, comfortable and well constructed. In the northern parts of the province the majority of the Indians continue to follow their primitive nomadic mode of life, and many of them still live in tents and tepees during the greater part of the year.

BRITISH COLUMBIA

Agencies.—The following agencies are included in the Province of British Columbia: Babine and Upper Skeena, Bella Coola, Cowichan, Kamloops, Kootenay, Kwawkewlth, Lytton, New Westminster, Nicola, Okanagan, Queen Charlotte, Skeena, Stikine, Stuart Lake, Vancouver, West Coast, and Williams Lake.

Tribal Origin.—The Indians of the Bella Coola, Cowichan, Kamloops, Lytton, New Westminster, Vancouver, and Okanagan agencies belong to the Salish tribe. The Kootenay tribe is located in the agency of the same name. The Kwakiutl-Nootka tribe is located at the Kwawkewlth and West Coast agencies; the Haidas, in the Queen Charlotte islands; the Tlingits, in the Stikine; and the Tsimshians in the Skeena agency. The Indians of the Babine, Stuart Lake and Williams Lake agencies belong to the Athapascan race.

In addition to these there are about 2,500 nomadic Indians in the province who cannot be correctly classified according to linguistic stock or tribal origin.

Occupations.—The occupations of the Indians of British Columbia vary with their habitat. The Indians situated along the coast earn their livelihood principally by fishing. In many instances they own their own motor launches, nets and gear, while others are supplied by the various canneries. Many of the women are also employed in the canneries or in the hop fields, and earn a steady income.

In the inland parts of the province some farming operations are carried on and particularly in the irrigated districts grain, fruits of all kinds, and vegetables have been raised with success. These Indians have been making marked progress in this regard and are now well equipped with modern machinery.

The Kootenay, Kamloops, Okanagan and New Westminster Indians own large herds of horses and cattle. While the Indians in the northern and remote parts of the province still depend upon hunting and trapping for their livelihood, the agents report a marked improvement in their manner of living.

Dwellings.—Except in the more remote districts the Indians of British Columbia have built comfortable and modern dwellings and outbuildings. Their progress in this respect has been rapid.

NORTHWEST TERRITORIES

Agencies.—The department has now three agencies in the Northwest Territories, namely, Fort Simpson, Fort Smith, and Fort Resolution.

Tribal Origin.—The principal tribes found in the Far North are the Slave, Hares, Loucheux, Sicannies, Dogribs, Yellow-knives, Chipewyans and Caribou Eaters. All these tribes are of Athapascan stock. There are a few Crees in the neighbourhood of Chipewyan. These are of Algonkin stock. The most northerly tribes are the Takudah, who extend to the Mackenzie Delta; and the Copper Mines, who are located along the Coppermine river. The territory occupied by these two last-named tribes is contiguous to that inhabited by the Eskimos.

These Indians depend entirely upon hunting and trapping for a livelihood.

Occupations.—A few have been induced to raise small plots of potatoes. They own no horses or cattle, transportation being almost entirely by canoe along the great waterways, or by dogs in winter. They catch and preserve large quantities of whitefish for their own use and for consumption by their dog-trains in winter.

YUKON

Tribal Origin.—The Forty Mile, Blackstone, and Moosehide bands belong to the Takudah tribe. There is a band of Slavies at Lancing Creek who migrated from Fort Good Hope, on the Mackenzie river; another band of Slavies, called Nahanies, is located at the headwaters of the Pelly river. All these Indians are

of Athapascan stock. At Mayo, Selkirk, Little Salmon and Carmacks there are bands belonging to the tribe known as Stick Indians. Bands belonging to the Tlingit tribe are found at Whitehorse, Teslin Lake, Champagne Landing, and Carcross.

Occupations.—Hunting, trapping and fishing are the chief occupations of the Yukon Indians, and they have been fairly successful during the past year. The women also derive some revenue from the sale of moccasins and curios of various kinds, while the men are expert at making toboggans and snowshoes. Practically no farming is carried on owing to climatic conditions, but some of the Indians cultivate patches of potatoes and other vegetables.

FINANCIAL

At the close of the twelve months ended March 31, 1930, capital of the Indian Trust Fund, which at the end of the preceding year amounted to \$13,629,403.74, had increased to \$13,856,521.04.

The amounts expended from the Consolidated Revenue Fund were as follows: Voted by Parliament for the purposes of the department, \$4,915,137.44, and annuities by statute, \$219,416.

On March 31, 1930, the balance to the credit of the Indian Savings Account for the funding of the annuities and earnings of pupils at industrial schools was \$219,970.42. Deposits and interest during the twelve months aggregated \$42,248.84 and withdrawals, \$34,866.62.

GENERAL

The recapitulation of complete census made by the department of the Indians of Canada, during the year, 1929, which follows herewith and therein also will be found statistics with regard to Grain, Vegetable and Root Production; Land, Private and Public Buildings and Property; Live Stock and Poultry; General Effects; Value of Real and Personal Property, and Progress during year; Sources and Value of Income; Schools; Indian Land; Civil Government; Appropriation Accounts and Indian Trust Fund.

I have the honour to be, sir,

Your obedient servant,

DUNCAN C. SCOTT,

Deputy Superintendent General of Indian Affairs.

PART II

TABULAR STATEMENTS

TABLE No. 1.—RECAPITULATION.—CENSUS OF INDIANS: ARRANGED UNDER PROVINCES, 1929

CENSUS

55

—	Num- ber in Pro- vince	Religions							Under 6 years		From 6 to 15 inclusive		From 16 to 20 inclusive		From 21 to 65 inclusive		From 65 years upwards		
		Anglican	Baptist	United Church	Presbyterian	Roman Catholic	Other Chris- tian Beliefs	Aboriginal Beliefs	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
PROVINCES																			
	Alberta.....	1,636	.....	1,281	.....	6,513	136	280	864	928	1,054	1,056	645	565	2,120	2,052	257	305
	British Columbia.....	4,435	.....	4,246	.....	12,879	648	399	1,676	1,791	2,498	2,544	1,287	1,224	5,177	4,890	763	757
	Manitoba.....	4,411	67	3,709	468	3,121	220	267	1,109	1,043	1,458	1,365	715	627	2,410	2,522	476	538	
	New Brunswick.....	.....	.....	.....	.....	1,604	.....	.....	112	130	191	189	99	95	367	327	45	49
	Northwest Territories.....	603	.....	.....	.....	3,229	.....	174	378	371	515	468	252	210	798	931	36	47
	Nova Scotia.....	1,929	15	1	.....	1,912	1	.....	173	145	232	215	102	124	458	355	67	58
	Ontario.....	27,420	6,915	1,038	5,252	111	8,269	594	2,782	1,769	1,638	2,292	2,186	1,628	1,559	5,302	5,202	920	863
	Prince Edward Island.....	295	295	22	26	32	24	24	24	27	60	57	13	10
	Quebec.....	12,885	385	631	31	9,750	57	12	832	866	1,077	1,104	580	546	2,293	2,293	288	266
	Saskatchewan.....	10,784	3,443	919	181	5,221	1,020	962	1,024	1,247	1,214	576	524	2,223	2,394	260	360
	Yukon.....	1,264	1,223	41	101	134	116	113	63	59	239	226	48	45	45
	Total Indian Population.....	108,012	23,051	1,120	16,039	791	52,834	1,656	4,934	7,998	8,096	10,712	10,478	5,971	5,560	21,447	21,249	3,173	3,298

*No details as to religion of 7,587 Indians available.

*No details as to ages of 10,030 Indians available.

TABLE NO. 2.—GRAIN, VEGETABLE AND ROOT PRODUCTION

Agencies	Wheat		Oats		Other Grains		Peas, Beans, etc.		Potatoes		Other Roots		Fodder—Tons	
	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Hay Cultivated	Hay Wild
ALBERTA	5,680	16,519	1,697	2,850	41	200			5	175				1,349
	7,081	130,240	1,580	11,229					15	300				3,500
	942	13,206	1,840	14,125	623	12,322	35	543	12	455				368
	1,919	15,626	2,098	15,995	981	5,684			18	606	11			3,296
		1,750		14,666					64	6,235	7	2,200		527
	1,984	31,954	418	9,935										2,105
	1,220	9,792	742	5,402	2	21			16	1,452	11	339		1,046
	211	2,282	347	3,233					5	103	10			2,961
									5					446
														1,700
Total.....	19,067	218,369	8,196	68,435	1,647	18,227	35	543	140	9,326	39	2,559	20	17,670
BRITISH COLUMBIA														
Babine.....														
Bella Coola.....			79	242					98	10,940	58	6,960		586
Cowichan.....	50	1,560	429	16,635					19	1,650	2	100		600
Kamloops.....	319	4,825	282	2,625	20		4		276	6,685				1,560
Kootenay.....	49	820	553		15	185	6		172	24,500	9	2,000		1,745
Kwakwaka.....									27	4,685	6	340		955
Lytton.....	102	2,320	133	3,640	19	430	224		202	40,610	18	415		1,008
New Westminster.....	25	585	289	14,675	18	595	48		138	11,850	42	3,990		519
Nicola.....	130	1,820	430	7,950	3	85	10		130	7,970	15	75		260
Okanagan.....									230	22,250	150	20,050		5,015
Queen Charlotte.....	1,175	26,450	495	8,350	120	2,250	140		240	22,250	150	20,050		1,350
Skeena River.....									8	460	1	10		2
Stikine.....			3				6		182	17,150	14	1,215		16
Stuart Lake.....														48
Vancouver.....									48	2,440	22	1,250		11
West Coast.....			6		10	300	27		48	5,600	5	500		288
Williams Lake.....	111	1,680	348	8,100	*16		5		6	310	4	158		65
Total.....	1,961	39,660	3,027	62,207	223	3,775	470	10,263	267	10,345	75		1,700	5,265
MANITOBA														
Birtle.....	416	2,644	773	8,176	481	2,546								
Candeboye.....	77	757	113	1,475	633	5,795			10	775	4	350		1,705
Fisher River.....	2	33	168	5,675	8	123			109	1,805	25	615		1,752
Griswold.....	638	4,535	557	2,940	1,362	7,900			15	1,910				1,775
Manitowapah.....			37	142					92	343	9	230		615
Norway House.....									68	1,139				7,853
Pas.....									45	2,500	1	50		280
Portage la Prairie.....	639	5,063	505	5,168	872	7,859			26	695				2,325
Total.....	1,780	13,129	2,153	23,576	3,356	24,313			378	9,047	39	1,245		16,966

*Small fruits.

NEW BRUNSWICK

Northern Division.....	32	310	4	18	1 1/2	5 1/2	4 1/2	190	2 1/2	130	6	.....
Northeastern Division.....	93	1,500	15	180	6	58	54	2,900	12	1,450	112	25
Southwestern Division.....	1	30	.....	.....	1 1/2	40	8	525	1	20	8	.....
Total.....	5	1,840	19	198	8 1/2	103 1/2	66 1/2	3,615	15 1/2	1,600	126	25

NORTHWEST TERRITORIES

Fort Resolution.....
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NOVA SCOTIA

Annapolis.....
Antigonish and Guysborough
Cape Breton (Baskasoni).....
Cape Breton (Sydney).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Colchester.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Digby.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Halifax.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hants (Indian Brook).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hants (Windsor).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inverness.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kings.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lunenburg.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pictou.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richmond.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shelburne.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Victoria.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yarmouth.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	67	1,067	4	30	15 1/2	166	102	4,660	19 1/2	670	305 1/2	227

ONTARIO

Alnwick.....	15	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape Croker.....	20	236	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carleton Place.....	300	6,250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chapleau.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Christian Island.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Frances.....	3	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Williams.....	7	165	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Georgina Island.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golden Lake.....	8	80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gore Bay.....	4	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kenora.....	10	260	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maitowaning.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mora Via.....	204	1,520	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Credit.....	120	1,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Parry Sound.....	76	812	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rana.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rice Lake.....	10	250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sarnia.....	35	1,125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sumner.....	65	1,120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Cut green.

TABLE NO. 2.—GRAIN, VEGETABLE AND ROOT PRODUCTION—*Concluded*

Agencies	Wheat		Oats		Other Grains		Peas, Beans, etc.		Potatoes		Other Roots		Fodder—Tons		
	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Acres Sown	Bushels Harvested	Hay Cultivated	Hay Wild	Other Fodder
ONTARIO—<i>Concluded</i>															
Saugen.....	12	135	265	9,275	75	1,125	14	350	65	1,175	20	400	175	12	125
Sault Ste. Marie.....	5	40	103	2,460			25	280	109	5,100	19	650	105	117	
Savanne.....									34	2,200	13	255	5	20	
Seurog.....									3	150					
Six Nations.....	520	6,240	6,400	125,000	1,340	26,800	60	1,070	84	3,200	420	8,600	2,900		7,900
Sturgeon Falls.....	40		79	800	15	450	8	200	20	2,000	9	240	30	25	
Thessalon.....			79	551			26	260	87	3,150	64	230	145	53	
Tyendinaga.....	60	1,200	1,600	48,000	1,000	25,000	40	850	30	1,500	4	600	4,500		4,000
Walpole Island.....	145	900	750	16,000	70	1,400	60	590	140	6,440	22	1,050	40	300	150
Total.....	1,619	21,915	12,934	279,908	3,800	80,020	755	12,182	2,170	74,233	1,073	33,097	17,430	1,291	13,500
PRINCE EDWARD ISLAND.....															
	20	280	60	1,200					18	1,620	1	150	85	30	
QUEBEC															
Becancour.....			12	210	3	75	13	35	1	135					*
Bersimis.....	1	8	8	48	2	10	2	12	9	395	1	5	85		
Cacouna.....															
Caughnawaga.....	5	70	500	9,000	150	2,500	10	100	400	7,000	15	400	1,500		
Jeune Lorette.....															
Maniwaki.....			154	2,750	2	36	1	8	33	2,870	6	1,908	338	20	58
Maria.....	2	26	28	400					3	300	1	78	20		
Mingan.....															
Oka.....	25	300	125	3,000	50	500	15	175	30	500			300	20	175
Pierreville.....	20		20	200	8	100	4	25	12	600			12	75	
Pointe Bleue.....			200	2,000	15	150	5	50	42	1,052	5	50	150		15
Restigouche.....			195	1,940	4	50			60	2,500			10	35	
Seven Islands.....															
St. Regis.....	130	1,400	400	10,000	60	300	70	340	370	3,200	30	1,000	400	450	700
Timiskaming.....	9	80	50	400	6	40	2	20	12	500			100	20	20
Total.....	180	1,974	1,692	29,938	300	3,761	110	765	972	19,052	58	2,741	2,943	600	968
SASKATCHEWAN															
Assiniboine.....	146	852	42	350	283	2,208			3	49	2	40		1,088	43
Battleford.....	2,170	20,466	1,864	17,869					44	1,430	28	730		3,493	458
Carlton.....	3,432	49,729	1,521	25,926	174	2,475			22	1,045				5,050	16
Crooked Lakes.....	783	6,200	875	7,509	1,052	8,367			29	920				3,445	246
Duck Lake.....	2,040	32,600	1,050	18,800	1,010	1,010			15	600	9	250		4,250	150
File Hills Agency.....	920	4,251	1,317	2,861	1,100	13,139			6	475				1,225	600
Isle à la Crosse.....									12	600				440	
Moose Mountain.....	325	6,186	198	3,043	248	3,266			1	250	2	25		560	39
Moose Woods.....	451	3,300	71						8	50	1	50		1,050	45

Union Lake	791	3,949	1,578	11,619		14	730	1	19		4,910	133
Pelly	672	1,037	934	17,384	222	2,871	20	390			1,520	86
Qu'Appelle	3,556	22,061	1,286	2,371	254	2,359					2,466	66
Techwood	1,268	11,193	1,047	12,517	95	723	3	26			2,466	113
Wood Mountain Reserve	84	275					1	25			75	
Total	16,233	168,041	11,783	121,449	3,498	36,448	178	6,590	43	1,114	32,524	2,055
YUKON TERRITORY												
Yukon.....							* $\frac{1}{4}$	23	* $\frac{1}{4}$	83		1

RECAPITULATION

PROVINCES															
Alberta.....	19,067	218,369	8,196	68,435	1,647	18,227	35	543	140	9,326	39	2,559	20	17,670	6,875
British Columbia.....	1,961	39,660	3,027	62,207	223	3,775	470	10,263	1,861	167,445	421	37,063	16,101	11,060	802
Manitoba.....	1,780	13,129	2,153	23,576	3,356	24,313	.....	.....	378	9,047	39	1,245	.....	16,966	352
New Brunswick.....	5	40	126	1,840	19	198	8½	103½	66½	3,615	15½	1,600	126	25	8
Northwest Territories.....	.....	.....	.....	.....	.....	.....	.....	.....	½	15	.....	.....	.....	.....	.....
Nova Scotia.....	.....	.....	67	1,067	4	30	15½	166	102	4,660	19½	670	305½	227	19½
Ontario.....	1,619	21,915	12,934	279,908	3,800	80,020	755	12,182	2,170	74,233	1,077½	33,097	17,430	1,291	13,500
Prince Edward Island.....	20	280	60	1,200	.....	.....	.....	.....	18	1,620	1	150	85	30	.....
Quebec.....	180	1,974	1,692	29,938	300	3,761	110½	765	972	19,052	58	2,741	2,943	600	988
Saskatchewan.....	16,233	168,041	11,783	121,449	3,498	36,448	.....	.....	178	6,590	43	1,114	.....	32,324	2,055
Yukon Territory.....	.....	.....	.....	.....	.....	.....	.....	.....	½	23	½	83	.....	1	.....
Total.....	40,865	463,408	40,038	580,620	12,847	166,772	1,394½	24,022½	5,880½	295,626	1,713½	80,322	37,010½	80,394	24,579½

TABLE NO. 3.—LAND: PRIVATE AND PUBLIC BUILDINGS AND PROPERTY

Agencies	Total of Reserve Acres	Acres Cleared but not under Cultivation	Acres under actual Cultivation	Acres Fenced	Private Property							Public Property						
					Stone, Brick and Frame Dwellings	Other Dwellings	Outbuildings, etc.	Ploughs, Harrows, Drills, etc.	Mowers, Reapers, Binders, Threshers, etc.	Carts, Wagons and Vehicles	Automobiles	Tools and small Implements	Churches	Council Houses	Saw Mills	Other Buildings	Engines and Machinery	
ALBERTA																		
Blackfoot.....	174,786	2,300	143,486	29,000	69,000	158	97	630	565	320	355	30	650	3	2	24	197	
Blood.....	354,086	4,700	328,787	20,599	81,640	94	330	535	450	270	560	19	3,075	2	2	64	70	
Edmonton.....	70,942	31,530	35,028	7,384	39,521	32	134	230	281	204	236	12	1,197	2	1	9	9	
Hobbema.....	76,868	49,682	19,748	7,438	25,779	4	189	296	396	284	923	15	2,486	1	1	3	3	
Lesser Slave Lake.....	246,241	147,302	97,710	1,229	1,320	2	263	374	100	94	268	1	1,023	1	2	13	48	
Peigan.....	100,354	9,100	94,197	5,257	100,354	24	80	325	175	136	237	6	1,040	1	2	13	48	
Saddle Lake.....	88,736	25,435	60,616	2,695	9,199	4	171	205	183	141	266	4	895	2	1	2	6	
Sarcee.....	62,838	35,000	28,640	1,198	62,838	39	3	36	44	46	90	12	400	3	1	2	6	
Stony.....	80,661	32,000	48,491	1,170	13,000	10	134	92	52	84	250	12	400	2	3	2	6	
Total.....	1,255,512	328,839	854,703	71,970	402,651	365	1,401	2,490	2,246	1,579	3,185	98	10,766	5	7	115	330	
BRITISH COLUMBIA																		
Babine.....	33,379	19,417	10,015	3,947	3,056	337	322	421	175	66	282	23	5,140	11	10	3	1	
Bella Coola.....	19,135	18,515	565	3,555	1,201	222	155	355	25	13	30	14	1,470	5	5	2	7	
Cowichan.....	19,878	10,260	5,882	3,736	5,617	679	23	269	301	77	260	131	5,250	10	4	1	3	
Kamloops.....	87,877	50,415	35,313	2,147	71,090	98	198	377	448	169	283	26	799	10	4	1	3	
Kootenay.....	42,316	16,865	23,876	1,575	2,372	54	146	191	240	75	223	35	543	5	1	1	3	
Kwawkwalth.....	16,305	15,761	521	23	39	212	88	191	440	114	370	7	2,653	6	1	2	5	
Lytton.....	51,382	31,250	16,675	3,457	5,604	447	208	503	476	114	370	71	2,956	33	4	2	5	
New Westminster.....	23,793	17,407	4,693	1,693	7,776	166	146	116	78	45	90	68	1,377	4	3	1	9	
Nicola.....	83,116	42,906	37,116	3,094	51,800	156	157	325	595	191	277	40	1,098	9	3	1	9	
Okanagan.....	146,069	75,349	65,420	5,300	61,500	222	147	595	587	107	540	107	2,075	10	3	8	27	
Queen Charlotte.....	3,484	2,173	1,300	11	21	137	106	120	2	1	22	13	800	2	2	3	12	
Skeena River.....	71,642	70,889	150	496	163	236	3	236	3	1	4	2	760	10	4	3	12	
Stikine.....	415	399	399	1	3	10	114	11	11	1	7	11	2,500	1	1	22	12	
Stuart Lake.....	34,594	29,347	4,285	962	7,534	45	275	319	89	63	176	11	2,720	16	1	6	25	
Vancouver.....	17,553	16,231	848	474	417	303	104	153	16	5	21	23	1,050	7	4	3	94	
West Coast.....	12,131	11,665	417	49	128	434	216	4	5	1	5	10	257	4	4	3	2	
Williams Lake.....	76,986	30,391	45,506	1,089	45,254	21	443	264	163	172	223	35	2,025	13	4	2	2	
Total.....	740,055	458,856	253,382	27,817	263,562	4,069	3,011	4,259	3,203	1,094	2,813	615	32,980	148	49	18	169	
MANITOBA																		
Birtle.....	53,622	30,725	18,705	4,192	11,670	23	165	303	240	142	383	2	2,450	4	1	1	6	
Clanadrove.....	75,241	58,160	15,075	2,006	6,545	2	615	208	110	39	75	5	505	15	18	10	9	
Fisher River.....	94,844	93,412	789	643	3,425	2	268	360	157	151	251	5	923	5	1	14	2	
Graswald.....	11,814	975	7,403	3,436	1,752	44	53	141	179	101	267	12	620	1	2	4	4	

Manitowaboh.....	97,432	47,191	49,861	380	5,975	11	395	391	91	159	343	6	2,120	11	2	9	28
Norway House.....	66,514	55,833	10,608	43	70	6	465	95	8	12	12	1	400	1	2	5	15
Pas.....	60,743	50,027	10,671	43	1,408	51	449	193	31	22	36	1	398	13	1	1	10
Portage la Prairie.....	14,443	2,725	6,585	5,133	2,075	26	73	121	73	57	124	20	400	1	1	1	5
Total.....	474,653	339,048	119,697	15,908	32,917	163	2,483	1,812	889	673	1,491	15	7,906	51	6	49	28
NEW BRUNSWICK																	
Northern Division.....	6,506	6,066	228	212	230	60	...	24	10	3	14	10	80	1	1	2	1
Northeastern Division.....	30,136	29,100	851	185	913	228	37	136	66	20	79	2	570	5	2	5	9
Southwestern Division.....	1,110	1,017	77	16	72½	65	...	26	...	...	5	...	350	...	2	4	...
Total.....	37,752	36,183	1,156	413	1,215½	353	37	186	76	23	98	12	1,000	6	5	11	10
NORTHWEST TERRITORIES																	
Fort Resolution.....	...	...	...	...	...	...	198	88	...	...	...	...	...	...	...	...	1
NOVA SCOTIA																	
Annapolis.....	55	50	...	5	...	16	...	6	...	...	...	...	...	...	...	...	...
Antigonish and Guysboro.....	521	225	211	85	200	39	11	4	3	1	7	2	65	1	1	1	1
Cape Breton (Esquibo.....)	2,800	2,000	555	245	300	22	2	20	7	2	4	2	50	1	1	1	2
Cape Breton (Sydney).....	69	27	36	6	69	26	...	25	...	...	3	2	65	1	1	1	2
Colchester.....	225	150	60	15	50	37	...	11	5	2	10	...	100	1	1	1	1
Cumberland.....	1,020	1,005	10	5	...	16	...	2	...	...	...	...	...	...	...	...	...
Digby.....	1,000	1,200	350	50	100	19	...	4	...	...	...	...	...	...	...	...	...
Halifax.....	1,221	80	87	54	189	23	5	...	6	2	...	...	50	1	1	...	...
Hants (Indian Brook).....	2,053	1,916	130	7	85	8	...	13	3	1	12	1	32	1	1	...	...
Hants (Windsor).....	1,000	994	...	6	...	3	...	4	...	...	...	...	100	1	1	...	...
Inverness.....	2,757	2,350	329	78	519	46	9	12	22	4	3	...	176	1	1	2	4
Lunenburg.....	2,470	416	52	2	470	10	...	2	...	...	...	...	...	...	...	...	...
Pictou.....	2,053	1,875	162	16	130	23	...	20	4	1	4	...	100	...	1	...	...
Richmond.....	276	105	165	30	31	10	5	7	...	...	...	...	160	2	1	...	...
Shelburne.....	1,281	850	230	201	225	30	10	18	2	2	30	3	200	1	1	1	3
Victoria.....	796	510	...	60	50	24	1	9	8	3	13	4	60	...	1	...	2
Yarmouth.....	22	20	...	2	...	...	4	...	...	...	...	...	...	...	...	...	...
Total.....	17,219	13,773	2,605	841	1,961	381	56	162	88	129	26	1,283	11	2	12	15	3
ONTARIO																	
Alnwick.....	3,502	900	...	2,400	2,800	40	...	23	48	14	40	11	275	1	1	...	...
Cape Croker.....	15,586	10,024	5,268	294	2,907	37	74	130	170	36	126	17	586	2	1	3	6
Carleton Place.....	14,357	9,207	5,207	3,200	10,650	260	128	405	726	197	554	57	1,550	9	3	6	15
Chapleau Island.....	45,340	45,042	289	9	12	...	...	...	...	...	...	...	...	...	...	...	3
Fort Frances.....	13,264	12,264	500	500	500	26	24	35	28	11	31	2	850	2	1	1	2
Fort William.....	70,598	69,000	581	1,017	1,354	55	116	36	31	10	30	6	833	...	2	2	7
Georgina Island.....	45,253	44,855	305	93	40	93	85	16	9	...	5	2	379	7	2	8	...
Golden Lake.....	3,578	2,000	1,453	125	400	11	15	33	30	8	20	2	150	1	1	1	2
Gore Bay.....	1,560	1,240	270	50	300	4	18	37	10	2	93	6	200	1	1	1	...
Kenora.....	14,995	12,309	1,749	937	1,806	16	218	107	112	30	143	21	570	4	1	4	1
Manitowaning.....	135,285	134,504	643	335	...	...	...	243	122	19	115	4	10,000	...	5	3	4
Moravian.....	179,685	146,772	27,243	5,670	11,920	63	516	1,349	514	285	834	40	4,155	11	1	9	11
New Credit.....	6,000	100	1,458	3,800	2,500	37	36	100	100	25	80	20	115	2	1	1	2
Total.....	6,000	100	2,800	3,100	6,000	60	3	35	50	40	25	12	500	1	1	1	...

TABLE No. 3.—LAND: PRIVATE AND PUBLIC BUILDINGS AND PROPERTY—Concluded

Agencies	Total of Reserve	Acres under Wood	Acres Cleared but not under Cultivation	Acres under Actual Cultivation	Acres Fenced	Private Property								Public Property					
						Stone, Brick and Frame Dwellings	Other Dwellings	Outbuildings, etc.	Ploughs, Harrows, Drills, etc.	Mowers, Reapers, Binders, Threshers, etc.	Carts, Wagons and Vehicles	Automobiles	Tools and small Implements	Churches	Council Houses	School Houses	Saw Mills	Other Buildings	Engines and Machinery
ONTARIO—Concluded																			
Perry Sound.....	86,872	84,822	1,210	840	1,300	38	88	49	78	26	58	3	165	8	1	6	3	2	4
Rama.....	2,253	1,103		200	1,250	62	9	41	11	8	19	9	200	1	1	1	1	9	
Rice Lake.....	3,524	1,675		650	2,150	65	15	74	81	37	75	20	210	2	2	2	2	1	
Sarnia.....	10,927	6,597	3,944	386	5,835	78	25	204	165	80	165	20	725	4	2	3	5	4	
Saugeen.....	14,100	9,050	4,599	451	1,800	62	128	431	184	37	151	20	300	5	1	3	1	5	
Sault Ste. Marie.....	39,249	36,525	2,261	463	1,516	63	93	135	65	10	159	2	1,230	5	1	4			5
Savanne.....	126,166	125,538	561	67	30	197	23	6			16	1	7,300	1	1				1
Seagow.....	800	50		509	800	8		5			3		70	1					1
Six Nations.....	38,947	6,520	5,411	27,016	38,947	550	218	1,679	2,340	490	1,649	39	9,945	15	1	11	29	55	
Sturgeon Falls.....	46,813	46,291		502	311	61	79	89	40	6	87		500	4		5	1		
Thessalon.....	61,320	59,768	740	812	812	47	72	132	24	11	42	6	1,010	3		5	3		6
Tyendinaga.....	17,604	7,121	2,643	7,840	13,720	237	1	556	450	230	450	50	825	2	2	2	1	3	5
Walpole Island.....	40,480	35,862	3,230	1,388	8,375	141	84	285	267	98	295	43	285	2					
Total.....	1,041,086	902,652	78,977	59,457	118,559	2,114	2,395	6,312	5,563	1,694	5,189	416	42,428	93	33	87	7	98	119
PRINCE EDWARD ISLAND																			
Beauport.....	122	52		70	86	7	107	6	1	2	4		7						1
Bersimis.....	63,137	61,530	1,581	86	70		2	21	7		25	1	365	1		1	1	1	1
Cacouna.....	400																		
Caughnawaga.....	12,327	800	6,500	5,027	5,200	565	1,300	210	150	1,000	65	1,000	2	1	6	3	6	12	
Jeune Lorette.....	42,008	40,275	217	1,516	801	8	72	115	73	48	109	7	542	1	1	2	2		
Maniwaki.....	416	150	232	34	50	26	24	6	3	8			80		1	1			1
Maria.....						13													
Mingan.....	18,500	16,000	1,600	900	1,500	100	125	75	25	125	8	1,000	1		2				8
Oka.....	579	349	275	230	1,500	100	150	15	7	11	9	225	2	1	2				
Pierreville.....	3,779	1,928	529	1,322	1,400	80	19	150	70	45	185	7	400	2	1	2	10		
Ponto Bleu.....	8,856	8,426	128	302	430	102	5	192	32	5	80	3	280	1	1	1	5	3	
Restigouche.....	160	150	10		700	243	35	518	210	322	3	1,530	2		6		15	31	
Seven Islands.....	9,434	1,190	6,486	1,798	710	243	30	48	18	3	24	1	300		1		3	2	
St. Regis.....	34,136	31,540	2,246	350	420	16													
Timiskaming.....							268	2,320	1,025	498	1,933	113	5,989	14	5	24	1	31	74
Total.....	193,941	162,441	19,905	11,595	10,972	1,394	208	2,320	1,025	498	1,933	113	5,989	14	5	24	1	31	74

SASKATCHEWAN

Assiniboine.....	40,963	27,314	11,526	2,123	1,895	12	39	62	75	44	100	9	531	2	1	1	4
Bartleford.....	206,486	39,851	160,938	5,697	54,626	412	426	300	342	326	326	2,760	1	6	1	1	12
Carleton.....	200,139	84,415	108,348	7,376	18,085	229	207	176	176	205	205	14	7	1	1	1	7
Crooked Lakes.....	102,397	38,008	60,315	4,074	19,700	7	170	323	276	213	213	1,915	1	3	7	1	14
Duck Lake.....	124,181	27,100	92,781	4,300	14,700	10	186	383	313	174	198	8	3	2	3	1	8
File Hills Agency.....	72,046	24,000	42,863	5,183	11,150	29	59	153	107	75	183	1	3	1	1	1	1
Isle à la Crosse.....	151,185	149,660	1,513	12	30	426	126	80	93	62	4	865	1	1	1	1	1
Moose Mountain.....	30,040	25,000	3,986	1,054	30,040	1	54	22	19	32	44	2	300	2	1	1	1
Moose Woods.....	4,007	1,745	2,062	200	1	200	1	27	22	13	32	1	57	1	1	1	2
Omion Lake.....	210,082	55,266	151,769	3,047	11,500	3	192	452	123	115	322	4	2,100	1	1	1	1
Pelly.....	57,763	20,466	34,515	2,782	16,532	17	117	181	100	91	162	1	795	3	2	2	3
Qu Appelle.....	77,435	7,268	52,226	7,941	39,850	44	155	181	421	183	341	4	1,603	4	3	4	3
Touchwood.....	95,118	50,172	41,210	3,735	50,032	6	236	362	359	265	353	3	140	3	1	4	14
Wood Mountain Reserve.....	6,720	190	6,370	160	800	.....	13	15	10	14	20	1	140	1	1	4	25
Total.....	1,368,562	550,455	770,422	47,685	269,140	556	2,016	2,547	2,531	1,751	2,764	52	14,720	28	16	26	68

YUKON TERRITORY

Yukon.....	3,735	3,711	24	1
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RECAPITULATION

Albertain.....	1,255,512	328,839	854,703	71,970	402,651	365	1,401	2,490	2,246	1,579	3,185	98	10,766	5	7	8	115	330
British Columbia.....	740,055	458,856	253,382	27,817	263,562	4,069	3,011	4,259	3,203	1,094	2,813	615	32,980	148	49	41	18	87
Manitoba.....	474,653	338,048	119,697	15,908	32,917	163	2,483	1,812	889	673	1,491	45	7,906	51	6	49	2	77
New Brunswick.....	37,752	36,183	1,156	413	1,215½	353	37	186	76	23	98	12	1,000	6	5	11	10	28
Northwest Territories.....	.....	.....	.....	.....	.....	.....	198	88	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Nova Scotia.....	17,219	13,773	2,605	841	1,961	381	56	162	88	18	129	26	1,283	11	2	12	15	3
Ontario.....	1,041,086	902,652	78,977	59,457	118,559	2,114	2,395	6,312	5,563	1,694	5,189	416	42,428	93	33	87	7	119
Prince Edward Island.....	1,668	926	424	318	198	47	15	26	36	4	10	1	410	1	1	1	3	2
Quebec.....	193,941	162,441	19,905	11,595	10,972	1,394	298	2,320	1,025	498	1,933	113	5,989	14	5	24	1	31
Saskatchewan.....	1,368,562	550,455	770,422	47,685	269,140	556	2,016	2,547	2,531	1,751	2,764	52	14,720	28	16	26	4	74
Yukon Territory.....	3,735	3,711	.....	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	68
Total.....	5,134,183	2,796,884	2,101,271	236,028	1,101,175½	9,442	11,880	20,202	15,457	7,334	17,612	1,378	117,482	358	124	260	32	794

TABLE No. 4.—LIVE STOCK AND POULTRY: GENERAL EFFECTS

Agencies	Horses				Cattle				Poultry	General Effects					
	Stallions	Geldings and Mares	Foals	Bulls	Steers and work Oxen	Milch Cows	Young Stock	Other Stock		Motor and Sail Boats	Row Boats and Canoes	Rifles and Shot Guns	Steel Traps	Nets	Tents
ALBERTA															
Blackfoot.....		2,750	500	29	479	791	901	10	400				30		180
Blood.....	9	4,085	270	31	313	628	404		2,400				200		450
Edmonton.....		461		2	90	187	80	122	1,625				1,231	79	130
Hobbema.....		977	136	12	197	281	153	6	1,863				1,194	120	135
Lesser Slave Lake.....	40	1,110	170	5	50	100	80			210	700	6,000		390	470
Peigan.....	2	2,416		24	291		942	748	200						125
Saddle Lake.....	14	542		1	14	246	920	80	790	73	178	1,967		175	124
Surcee.....	5	800	200	10	35		174	170	250				15	200	40
Stony.....	25	1,000	200			11	172	444	150				800		200
Total.....	81	14,141	1,476	114	1,469	2,418	3,162	1,410	6,678		298	1,475	11,622	764	1,854
BRITISH COLUMBIA															
Babine.....	10	596	91	18	333	223		144	704		104	1,391	24,900	287	216
Bella Coola.....	5	315	28	4	30		62		375	40	305	565	6,200	98	77
Cowichan.....		171	29			124	29	700	9,750	212	316	521	18	95	2
Kamloops.....	14	2,290	334	16	96	290	334	404	4,300		108	764	2,370	2	432
Kootenay.....	14	1,605	235	12	29	750	206		870		53	178	970		142
Kwawkweth.....										155	233	280	3,250	209	74
Lytton.....	24	477	145	28	119	97	331	285	1,810		97	313	5,222	64	187
New Westminster.....	5	214	55	14	114	258	188	611	2,894	38	113	302	1,373	142	104
Nicola.....	8	968		10	514	52	77	801	362		5	142	1,252		77
Okanagan.....	46	1,400	265	72	1,320	150	1,250	1,600	5,300	3	65	495	1,175	32	295
Queen Charlotte.....	3			3	21	38	38		250	98	115	193	410	45	35
Skeena River.....	3	26	7	3	6	30	10	6	1,140	275	313	160	4,850	266	161
Stikine.....		38								96	64	355	5,200	50	240
Stuart Lake.....	8	545	149	12	80	212	160		295	96	195	355	5,200	50	240
Vancouver.....	2	31		12	28	15	12	8	3,850	115	172	307	5,540	298	194
West Coast.....	5			16	23	54	59	41	1,495	233	1,268	791	800	132	109
Williams Lake.....	58	2,430	385	34		45		2,215	1,545		54	448	4,700	238	36
Total.....	195	11,174	1,723	244	2,713	2,424	2,710	6,915	35,388	1,475	3,580	8,379	69,969	2,032	2,831
MANITOBA															
Birtle.....	3	401	16	3	26	65	30	3	1,580			164	1,130	4	147
Candeboye.....		193	26	4	37	123	55		150	46	634	683	6,750	1,015	400
Fisher River.....	1	294	48	9	159	357	171		984		123	203	2,293	1,781	490
Griswold.....		240	12	50	12	50	76		866			418	1,683		86
Manitowapah.....		511	47	15	50	566	804	65	785		205	461	4,500	1,820	297
Norway House.....		15			6	30	17			21	755	970	8,100	1,950	605
Pas.....		215		25	45	232	167			14	512	643	17,500	1,173	529
Portage la Prairie.....		250	17	1		53	63	33	425		4	73	1,250		46
Total.....	4	2,119	166	58	335	1,476	1,383	101	4,784	81	2,235	3,285	44,252	6,743	2,220

TABLE NO. 4.—LIVE STOCK AND POULTRY: GENERAL EFFECTS—Concluded

Agencies	Horses			Cattle				Poultry	General Effects						
	Stallions	Geldings and Mares	Foals	Bulls	Steers and work Oxen	Milch Cows	Young Stock		Other Stock	Motor and Sail Boats	Row Boats and Canoes	Rifles and Shot Guns	Steel Traps	Nets	Tents
ONTARIO—Concluded															
Savanne.....		11	1												
Seugog.....		4	1												
Six Nations.....	5	920	201	31	649	1,401	1,962	2,970	48,000	35	354	24,500	530	318	
Sturgeon Falls.....	5	60	7	9	10	60	46	19	740	52	29	600		6	
Thessalon.....	3	57	12	4	5	57	42	57	890	30	84	1,03	74	155	
Tyendinaga.....		300	15	30	25	630	200	500	7,000	7	30	1,500	20	84	
Walpole Island.....	8	470	62	6	57	170	200	135	1,450	18	60	4,100	10	1	
Total.....	54	3,625	448	122	914	3,497	3,490	5,100	74,637	435	2,363	4,260	3,283	1,750	
PRINCE EDWARD ISLAND.....															
		18	2			20	12		140	4	10	28	32		
QUEBEC															
Béancour.....		2	1	1		9	6		104		3	5			
Bersimis.....		12		2		17	5		140	11	165	130	2	195	
Carouba.....											1	10			
Caughnawaga.....		275	50	150		1,600	200	800	7,000	25	40	200	75	3	
Jeune Lorette.....		2				3			150		35	67	750	12	
Maniwaki.....		61	2	4		93	63	65	446		75	124	1,859	29	
Maria.....		3		2		11	3		35		8	18	14	2	
Mingan.....										4	30	58	2,500	25	
Okogan.....		80	25	10		75	40	40	400		40	30		4	
Pierre-ville.....		6		1		25	15	6	50		20	25	60	2	
Ponte Bleue.....	1	47	2	6		47	21		914	4	200	500	200	20	
Restigouche.....		31	2	7		62	35	55	210		23	150	250	10	
Seven Islands.....										3	33	55	1,100	20	
St. Regis.....	5	220	34	33	14	360	300	175	3,600	50	187	100	50	6	
Timiskaming.....		16		1		15	15	10	250	3	140	275	3,000	140	
Total.....	6	755	116	217	14	2,342	715	1,131	13,299	100	1,000	1,748	22,868	493	756
SASKATCHEWAN															
Assiniboine.....	1	315			17	68	116		118			34	708		39
Battleford.....	8	1,271	79	10	113	343	377	32	2,225		65	447	274	386	
Carlton.....		152		40		665	729		1,926			138	3,775	80	
Crooked Lakes.....		562		7	77	271	129	2	1,400	4		195	950	19	
Duck Lake.....	4	513		15	78	334	424	17	698		10	171	1,814	34	
File Hills.....	1	389	4	4	44	63	93	156	700			61	480	49	
Isle a la Crosse.....		71		2	2	29	22					580	9,730	750	
Moose Mountain.....		132		3	41	38	31	5	150		430	55	900	2	
Moose Woods.....	1	86		2	28	80	104		36		1	27	324	2	
Onion Lake.....		676		11	166	446	347		1,870		82	322	10,800	170	

Pelly.....	256	61	67	234	106	177	700	.....	.....	1,000	.....	110
Qel'Appelle.....	4	8	36	279	198	131	947	.....	8	698	.....	130
Touche.....	465	8	46	239	333	.....	400	.....	.....	4,200	.....	163
Wood Mountain Reserve.....	73	.....	2	4	.....	.....	25	.....	.....	.....	.....	13
Total.....	20	5,963	87	3,093	3,099	389	11,195	4	637	2,547	39,289	1,919
YUKON TERRITORY												
Yukon*.....	1	.....	.....	4	2	2	32	1	.....	.....	.....	1

* School.

RECAPITULATION

PROVINCES																
Alberta.....	81	14,141	1,476	114	1,409	2,418	3,162	1,410	6,678	.....	298	1,475	11,622	764	1,854
British Columbia.....	195	11,174	1,723	244	2,713	2,424	2,710	6,915	35,388	1,475	3,580	8,379	69,969	2,032	2,831	
Manitoba.....	4	2,119	166	58	335	1,476	1,383	101	4,784	81	2,235	3,285	44,252	6,743	2,220	
New Brunswick.....	.....	27	.....	.....	2	27	22	3	385	36	156	269	1,395	182	57
Northwest Territories.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	61	640	735	9,080	870	391
Nova Scotia.....	.....	64	1	4	14	113	72	55	652	20	78	458	1,723	24	16
Ontario.....	54	3,625	448	122	914	3,497	3,490	5,100	74,657	435	2,363	4,260	77,487	3,283	1,750	
Prince Edward Island.....	.....	18	2	.....	.....	20	12	.....	140	4	10	28	90	32	.....
Quebec.....	6	755	116	217	14	2,342	715	1,131	13,299	100	1,000	1,748	22,868	493	756	
Saskatchewan.....	20	5,963	87	116	869	3,093	3,099	389	11,195	4	637	2,547	39,289	1,329	1,919	
Yukon Territory.....	.....	1	.....	1	.....	4	2	2	32	1	1	2	.....	.....	1
Total.....	360	37,887	4,019	876	6,330	15,414	14,667	15,106	147,210	2,217	10,998	23,186	277,775	15,752	11,795	

TABLE NO. 5.—VALUE OF REAL AND PERSONAL PROPERTY AND PROGRESS DURING THE YEAR

Agencies	Total Value of Lands in Reserves	Value of Private Fencing	Value of Private Buildings	Value of Public Buildings of the Band	Value of Implements and Vehicles	Value of Live Stock and Poultry	Value of General Effects	Value of Household Effects	Total Value of Real and Personal Property	Progress during the Year 1929		
	\$	\$	\$	\$	\$	\$	\$	\$	\$	Value of New Land Improvements	Value of Buildings Erected	Total Increase in Value
ALBERTA												
Blackfoot.....	3,000,000	24,000	300,000	80,000	120,000	185,000	8,500	25,000	3,742,500	1,500	750	2,250
Blood.....	7,081,720	32,136	84,000	25,000	171,000	64,580	5,915	26,800	7,512,226	3,400	4,000	7,400
Edmonton.....	1,138,626	16,850	98,550	9,425	35,590	24,670	18,700	14,362	1,343,928	1,505	8,400	9,905
Hobbsville.....	1,555,680	26,530	40,050	.....	87,200	47,800	12,175	8,180	1,707,647	6,250	2,175	8,425
Indian Head.....	2,059,377	12,295	51,550	.....	21,900	87,600	94,700	49,598	2,297,322	1,645	300	1,945
Peace River.....	9,987,840	4,687	40,837	10,229	64,290	148,360	16,117	7,043	1,283,646	1,645	300	1,945
Stettin.....	718,208	3,275	24,010	.....	21,190	45,251	5,307	2,000	1,824,286	1,571	950	2,521
Saddle Lake.....	1,180,420	11,000	21,000	35,000	10,000	40,615	8,000	10,000	1,302,035	300	.....	300
Surrey.....	463,070	9,000	21,000	.....	21,000	36,000	2,000	10,000	568,970	21,780	5,000	26,780
Stony.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	18,164,891	139,773	680,997	160,554	552,170	679,958	139,714	154,513	20,672,570	38,351	22,375	60,726
BRITISH COLUMBIA												
Babine.....	124,300	12,910	151,100	14,350	33,250	73,700	59,300	34,000	502,910	3,140	3,700	6,840
Bella Coola.....	358,100	2,050	131,000	16,000	29,200	13,900	128,000	73,000	818,250	2,000	5,200	7,200
Cowichan.....	1,757,300	118,900	192,650	12,300	114,150	46,175	78,700	83,400	2,402,550	1,800	5,850	7,650
Kamloops.....	931,080	24,329	31,845	20,200	32,900	40,473	10,855	11,500	1,109,179	1,600	1,000	2,600
Kootenay.....	472,280	12,160	20,435	117,700	26,355	87,318	8,325	17,375	732,140	1,400	1,300	2,700
Kwakiwalth.....	158,625	2,280	188,600	6,400	96,500	75,800	75,800	76,000	604,653	.....	3,800	3,800
Lytton.....	942,466	20,235	78,525	24,580	40,319	68,285	10,405	19,835	1,204,630	3,600	2,900	6,500
New Westminster.....	847,438	20,145	62,150	22,800	36,600	39,000	23,790	26,000	1,078,323	.....	2,938	4,429
Nicola.....	1,346,535	27,663	53,515	26,338	52,900	121,733	13,150	11,850	1,653,674	1,491	2,400	3,891
Okanagan.....	1,919,260	23,250	113,500	36,000	173,400	144,500	44,500	35,000	2,367,260	5,100	2,000	7,100
Queen Charlotte.....	70,000	1,100	91,000	5,400	9,700	7,200	248,500	28,900	255,000	.....	6,800	6,800
Skeena River.....	1,066,821	9,800	294,000	120,000	6,850	2,280	18,050	67,850	1,820,021	.....	2,800	2,800
Stikine.....	2,075	80	24,170	800	1,168	9,280	30,550	26,715	501,431	550	1,150	1,700
Stuart Lake.....	259,571	17,165	93,550	25,200	13,460	38,000	29,250	27,450	1,958,745	.....	2,100	2,100
Vancouver.....	1,695,485	5,970	114,650	68,950	16,050	8,975	60,190	37,650	341,528	.....	1,000	1,000
West Coast.....	112,500	3,900	114,750	4,025	4,468	8,975	60,190	37,650	341,528	.....	1,000	1,000
Williams Lake.....	466,120	62,600	30,600	8,900	25,200	125,400	12,050	14,200	745,070	12,240	11,300	23,540
Total.....	12,529,966	364,537	1,786,040	529,943	598,070	854,066	924,660	606,125	18,193,407	31,921	43,938	75,859
MANITOBA												
Birtle.....	502,845	2,455	32,870	2,800	22,925	38,840	5,200	4,500	611,835	428	2,270	2,698
Claudeboye.....	449,009	7,710	191,200	19,000	10,470	27,530	10,500	25,050	743,469	.....	4,200	4,200
Fisher River.....	847,612	9,785	44,490	12,750	15,875	52,400	10,500	14,000	1,007,412	60	1,240	1,300
Griswold.....	217,040	1,135	21,735	8,000	3,200	25,580	2,790	5,650	312,880	.....	4,800	4,800
Manitowapah.....	375,501	3,090	70,300	47,500	17,125	73,675	14,550	12,675	614,216	.....	23,000	23,000
Norway House.....	133,008	710	48,000	3,000	1,570	5,200	62,000	14,700	273,688	.....	2,000	2,000
Pas.....	270,450	5,180	45,600	18,000	5,260	24,900	67,900	21,200	454,090	.....	2,000	2,000
Portage la Prairie.....	221,440	2,900	28,050	13,900	14,720	19,090	1,520	3,060	305,080	3,390	11,300	14,690
Total.....	3,016,905	32,905	472,285	128,560	126,545	267,215	178,960	100,835	4,324,270	3,878	50,810	54,688

VALUE OF REAL AND PERSONAL PROPERTY

69

Northern Division.....	19,100	130	11,000	31,200	1,800	1,800	625	5,500	71,155	200	200
Northeastern Division.....	45,048	2,328	28,921	33,632	5,244	4,310	5,900	16,490	143,932	1,600	1,600
Southwestern Division.....	13,900	810	19,580	16,200	500	20	1,240	1,675	53,925	300	300
Total.....	78,048	3,268	59,501	83,082	7,544	6,130	7,765	23,665	269,003	2,100	2,100
NORTHWEST TERRITORIES											
Fort Resolution.....											
NOVA SCOTIA											
Annapolis.....	400		1,850	3,000	300	75	300	400	3,325	300	300
Antigonish and Guysboro.....	6,000	950	3,800	5,000	400	600	250	515	15,515		
Cape Breton (Esquasoni).....	10,000	250	1,500	790	1,400	1,400	900	990	20,830	300	300
Cape Breton (Sydney).....	20,000		21,000	2,500	25	175	2,000	500	46,200	500	800
Colchester.....	3,000	200	6,600	1,000	600	800	400	500	13,200	250	250
Cumberland.....	1,500	25	2,957	2,500	250	100	400	350	3,925	25	150
Digby.....	1,800	60	6,000	1,075	1,075	1,800	700	3,500	11,167	457	457
Halifax.....	2,300	1,400	6,000	3,000	500	250	150	400	10,866		
Hants (Indian Brook).....	5,550	146	500	975	300	300	400	500	12,450		
Hants (Windsor).....	10,500		16,500	5,500	300	250	150	900	39,000	150	
Inverness.....	8,725		2,400	500	50	100	150	400	7,600	50	200
Lunenburg.....	3,000	1,100	2,500	200	200	600	800	1,500	8,850	1,200	1,200
Pictou.....	2,500	350	9,800	1,200	1,000	2,250	856	1,600	23,796		
Richmond.....	2,500	40	3,850	1,200	550	550	600	800	4,750		
Shelburne.....	7,000	250	2,300	4,675	600	550	200	200	18,545	30	90
Victoria.....	6,500	360	200						900		
Yarmouth.....	300										
Total.....	94,475	5,331	85,957	37,175	8,015	13,250	10,606	16,410	271,219	2,712	3,472
ONTARIO											
Alnwick.....	76,500	4,500	38,000	8,000	3,500	8,500	3,000	15,000	157,000	2,000	2,000
Cape Croker.....	150,000	8,900	72,800	35,250	15,300	31,000	7,300	7,000	327,550	300	900
Caradoc.....	150,350	10,600	107,250	36,200	24,000	32,060	4,000	31,700	396,160	300	300
Chapleau.....	18,400	300	30,000	1,000			5,000		54,700		
Christian Island.....	35,900	2,160	8,500	7,150	3,250	7,500	2,000	3,300	293,826	100	300
Fort Frances.....	202,941	1,500	34,600	8,500	18,255	8,180	8,200	11,650	265,561	2,000	3,000
Fort William.....	182,460	600	31,500	21,300	2,709	7,525	11,377	8,000	57,900	1,000	19,800
Georgina Island.....	32,150	350	8,500	5,500	1,000	3,000	5,500	1,800	18,800	19,800	
Golden Lake.....	3,000	700	4,000	3,100	1,000	1,000	3,000	3,000	200	200	
Gore Bay.....	80,000	15,020	30,200	26,550	11,950	17,755	7,250	16,200	290,925		
Kenora.....	139,513	1,005	53,480	200	10,300	6,710	40,205	28,920	300,343	500	900
Manitowaning.....	237,000	22,890	71,275	36,850	48,820	43,930	20,515	42,740	533,820	800	1,100
Moravian.....	60,000	4,000	20,000	7,500	8,000	6,500	12,500	11,500	118,000	300	
New Credit.....	210,000	7,900	40,000	15,000	8,000	17,000	7,000	11,000	310,500	700	1,100
Parry Sound.....	122,000	950	20,900	19,300	12,200	13,500	7,621	16,000	212,471		
Rama.....	50,000	4,100	29,950	30,000	4,500	1,660	2,000	7,500	129,710		
Rice Lake.....	119,500	3,700	66,000	13,000	10,000	19,000	8,000	10,200	249,400	500	700
Sarnia.....	500,000	6,600	75,000	25,000	16,275	14,200	3,000	9,500	649,575	4,500	4,500
Saugan.....	80,000	2,000	21,000	33,000	2,300	12,500	2,300	4,600	163,600	200	900
Sault Ste. Marie.....	54,900	2,825	27,000	31,000	6,150	13,800	10,500	13,400	159,575		

TABLE NO. 5.—VALUE OF REAL AND PERSONAL PROPERTY AND PROGRESS DURING THE YEAR—*Concluded*

Agencies	Total Value of Lands in Reserves	Value of Private Fencing	Value of Private Buildings	Value of Public Buildings of the Band	Value of Implements and Vehicles	Value of Live Stock and Poultry	Value of General Effects	Value of Household Effects	Total Value of Real and Personal Property	Progress during the Year 1925		
										Value of New Land Improvements	Value of Buildings Erected	Total Increase in Value
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
ONTARIO—<i>Concluded</i>												
Savanne.....	126 166	90	24 205	75	7 035	570	47 030	29 225	234 396	.....	.....	.....
Scugog.....	60 000	2 000	674 000	500	400	500	300	950	66 650	.....	.....	2 320
Six Nations.....	1 144 410	389 470	674 000	67 000	288 000	270 100	16 200	71 900	2 921 080	2 320	3 000	3 000
Sturgeon Falls.....	242 240	2 350	61 750	19 000	6 300	17 600	24 000	45 000	418 190	.....	.....	3 000
Thessalon.....	129 064	9 705	11 750	12 800	6 130	13 000	13 000	8 600	208 149	.....	.....	1 050
Tyendinaga.....	645 300	134 825	115 000	44 800	42 800	80 000	2 645	55 800	1 117 170	.....	.....	3 700
Walpole Island.....	125 000	8 750	65 000	18 000	12 500	17 500	4 100	20 000	270 850	.....	.....	1 400
Total.....	4 986 794	647 790	1 744 010	525 575	575 474	664 590	271 343	474 485	9 890 061	6 320	40 850	47 170
PRINCE EDWARD ISLAND.....	20 000	1 650	10 700	10 000	1 100	2 100	3 100	2 700	51 350	.....	200	200
QUEBEC												
Beaucour.....	4 000	310	1 500	.....	325	1 089	185	300	7 719	.....	.....	.....
Bersimis.....	51 000	675	54 300	33 000	900	3 250	8 700	5 790	165 825	.....	.....	.....
Cacoma.....	6 000	.....	*4 225	.....	350	.....	1 220	120 000	17 585	.....	.....	.....
Caughnawaga.....	800 000	8 000	500 000	100 000	78 000	60 000	30 000	22 000	1 696 000	100	25 000	25 100
Jeune Lorette.....	32 000	4 690	55 500	31 000	11 000	1 000	1 950	13 940	156 050	.....	2 300	2 300
Maniwaki.....	36 100	4 560	27 400	2 095	11 532	13 478	7 560	3 150	116 795	.....	300	300
Maria.....	20 000	.....	6 000	5 000	1 200	.....	750	3 500	37 410	.....	.....	.....
Mingan.....	.....	.....	5 000	6 500	.....	.....	4 250	5 000	16 550	400	3 000	3 400
Oka.....	30 000	3 000	20 000	3 000	4 000	9 000	.....	16 000	74 000	200	4 500	4 700
Pierreville.....	35 000	1 000	62 500	2 500	1 200	2 500	2 000	15 000	176 050	.....	.....	.....
Pointe Bleue.....	50 000	6 000	49 050	14 000	16 000	11 000	15 000	15 000	299 600	.....	.....	.....
Restigouche.....	173 000	12 100	56 000	2 500	12 000	10 000	18 000	14 000	37 325	.....	.....	.....
Seven Islands.....	1 500	25	9 800	4 000	2 000	.....	6 000	11 000	42 000	250	800	1 050
St. Regis.....	250 000	2 500	114 000	20 000	12 500	27 000	6 000	35 000	472 000	.....	.....	.....
Timiskaming.....	35 000	1 700	9 000	1 700	2 000	3 300	7 000	3 000	62 700	.....	.....	.....
Total.....	1 523 600	41 160	975 275	225 295	153 007	142 367	113 625	283 980	3 458 309	950	36 100	37 050
SASKATCHEWAN												
Assiniboine.....	448 107	4 073	22 758	3 792	18 224	24 205	931	9 812	531 902	1 421	3 825	5 246
Battleford.....	3 226 008	34 650	84 700	5 300	79 500	85 150	24 200	24 800	3 564 308	2 005	13 250	15 255
Cardinal.....	1 642 059	9 191	43 994	2 070	70 000	80 785	4 230	4 567	1 805 772	5 160	11 000	16 160
Crook Lakes.....	924 183	10 000	72 000	200	49 900	50 840	13 150	9 500	1 124 732	1 458	7 300	8 758
Duck Lake.....	1 769 725	15 500	88 500	9 300	62 400	91 950	6 950	19 450	2 064 275	2 425	1 750	4 175
Fido Hills.....	990 000	4 200	66 000	.....	36 000	36 500	9 400	26 000	1 165 100	1 700	5 200	6 900

*Not on reserve.

Isle a la Crosse.....	150,822	450	49,400	300	400	5,650	128,000	43,000	379,022	1,790	2,750	4,540
Moose Mountain.....	250,800	2,100	14,000	2,700	11,000	9,340	2,200	2,500	294,730	1,700	2,750	4,540
Moose Woods.....	62,495	5,000	10,000	.....	7,500	22,000	1,100	1,100	109,195	1,474	700	2,100
Union Lake.....	2,191,740	15,700	50,250	5,950	26,400	92,355	13,740	16,500	2,422,635	1,474	700	2,100
Pelly.....	671,400	4,200	32,100	4,500	21,600	35,400	6,100	14,300	789,600	1,900	4,200	6,100
Qu Appelle.....	962,715	14,530	41,310	35,375	47,424	67,047	6,355	16,617	1,191,373	1,600	8,900	13,500
Touchwood.....	1,179,468	18,400	44,600	300	20,840	61,710	19,000	19,200	1,363,518	1,740	5,600	7,340
Wood Mountain Reserve.....	15,840	20	1,000	100	1,000	2,500	300	800	21,560	.....	.....	.....
Total.....	14,485,362	138,014	620,612	69,887	411,283	665,432	236,656	208,646	16,835,892	22,773	64,475	87,248
YUKON TERRITORY												
Yukon.....	3,734								3,734			

RECAPITULATION

PROVINCES												
Alberta.....	18,164,891	139,773	680,997	100,554	552,170	679,958	139,714	154,513	20,072,570	38,351	22,375	60,726
British Columbia.....	12,529,966	364,537	1,786,040	529,943	598,070	854,066	924,660	606,125	18,193,407	31,921	43,998	75,859
Manitoba.....	3,016,905	32,965	472,285	128,560	126,545	267,215	178,960	100,835	4,324,270	3,878	50,810	54,688
New Brunswick.....	78,048	3,268	59,501	83,082	7,544	6,130	7,765	23,665	269,003	.....	2,100	2,100
Northwest Territories.....							24,600	24,000	48,600	.....	.....	.....
Nova Scotia.....	94,475	5,331	85,957	37,175	8,015	13,250	10,606	16,410	271,219	760	2,712	3,472
Ontario.....	4,986,794	647,790	1,744,010	525,575	575,474	694,590	271,343	474,485	9,890,061	6,320	40,850	47,170
Prince Edward Island.....	20,000	1,650	10,700	10,000	1,100	2,100	3,100	2,700	51,350	.....	200	200
Quebec.....	1,523,600	41,160	975,275	225,295	153,007	142,367	113,625	283,980	3,458,309	950	36,100	37,050
Saskatchewan.....	14,485,362	138,014	620,612	69,887	411,283	665,432	236,656	208,646	16,835,892	22,773	64,475	87,248
Yukon Territory.....	3,734								3,734			
Total.....	54,903,775	1,374,488	6,435,377	1,770,071	2,433,208	3,295,108	1,911,029	1,895,359	74,018,415	104,953	263,560	308,513

TABLE No. 6.—SOURCES AND VALUE OF INCOME

Agencies	Value of Farm Pro- ducts including Hay	Value of Beef Sold also of that used for Food	Wages Earned		Received from Land Rentals		Received from Timber		Earned by Fishing	Earned by Hunting and Trapping		Earned by other Industries and Occupations		Annuities paid on interest on Indian Trust Funds		Total Income of Indians	
	\$	\$	\$	cts.	\$	cts.	\$	cts.	\$	\$	\$	\$	\$	\$	cts.	\$	cts.
ALBERTA																	
Blackfoot.....	40,000	22,910	3,500	23,626 67						1,000	13,000		112,877 19			216,913 86	
Blood.....	104,859	14,805	7,500	15,375 70						2,000	5,200		6,996 59			156,736 29	
Edmonton.....	50,879	3,880	19,500						1,700	10,450	7,850		23,685 20			118,004 20	
Hobbema.....	32,436	4,015	13,745	841 50					3,483	2,406	15,101		14,655 06			86,682 56	
Lesser Slave Lake.....	25,200	1,900	23,000				1,348 29		11,300	44,600	3,000		17,440 80			127,789 09	
Peigan.....	50,411	20,056	4,500	3,268 30						1,022	248		86,174 54				
Saddle Lake.....	32,913	6,250	10,090						1,045	2,800	4,980		5,894 37			63,972 37	
Sarcee.....	9,843	3,220	3,635	832 50						350	1,000		868 13			20,748 63	
Stony.....	2,589	5,583	33,602	3,221 40						5,194	5,505		6,252 39			61,946 79	
Totals.....	349,130	82,619	118,132	49,166 07			1,348 29		17,528	69,822	55,884		195,338 97			938,968 33	
BRITISH COLUMBIA																	
Babine.....	28,375	6,000	51,390	20 00					14,500	46,800	28,900		460 59			176,445 59	
Bella Coola.....	9,100	4,150	18,500	100 00			451 45		114 00	14,800	21,000		166 77			182,268 22	
Cowichan.....	49,950	8,700	148,500	3,130 13			500 00		31,510				3,599 51			245,869 64	
Kamloops.....	82,120		92,350	2,162 75			2,864 88			4,300			3,244 45			187,042 08	
Kootenay.....	42,020	13,775	19,000						775	7,150	4,175		358 80			87,253 80	
Kwakwath.....			11,300	760 00			3,253 25		55,300	3,600	3,150		1,577 46			78,940 71	
Lytton.....	42,120	9,120	94,800	462 00			1,576 46			2,900	13,000		1,036 45			165,014 91	
New Westminster.....	25,925	9,850	111,800	7,047 80			3,603 29		30,600	12,300	35,150		2,658 47			238,934 56	
Nicola.....	76,500		85,000							2,500	1,250		1,697 99			166,947 99	
Okanagan.....	70,000	16,500	45,000	260 00			158 13			4,500	7,750		753 92			144,922 05	
Queen Charlotte.....	900	700	16,000	150 00			497 15		11,500	15,800	5,000		119 24			50,666 39	
Skeena River.....	22,550	1,200	36,200				10,823 24		124,850	41,900	41,450		3,271 36			292,244 60	
Stikine.....	550		16,610						600	127,814						145,574 00	
Stuart Lake.....	22,350	6,600	14,300				500 18		13,640	17,950	2,530		1,839 53			79,709 71	
Vancouver.....	5,700		41,500	17,892 90			3,896 67		48,500	11,150	25,250		12,232 04			166,521 97	
West Coast.....	995	905	8,150	207 50			224 50		71,520	14,505	2,000		97 05			98,604 05	
Williams Lake.....	43,750	21,700	55,700	508 95						14,700	3,300		66 38			136,725 33	
Total.....	522,905	99,600	866,100	32,702 03			28,349 20		517,295	342,669	190,905		33,180 37			2,633,705 60	
MANITOBA																	
Birtle.....	14,945	1,850	14,250	269 20					2,120	4,050	4,010		3,521 34			45,015 54	
Clandsby.....	29,450	1,995	25,700	521 00			748 10		16,400	20,000	12,000		15,659 88			122,473 98	
Fisher River.....	34,580	4,220	18,400	150 00			46 00		17,000	38,500	13,300		9,115 68			135,411 68	
Grismold.....	14,847	880	2,890						2,105	2,105			315 97			21,037 97	
Manitowapah.....	35,585	10,110	9,500						24,850	12,950	6,850		11,237 40			111,082 40	
Norway House.....	5,850	350	21,000	25 00					19,000	109,000	15,000		14,196 25			184,421 25	
Pas.....	16,810	1,455	71,000	84 00			79 75		14,000	119,000			16,339 42			238,768 17	
Portage la Prairie.....	18,720	600	2,300	418 87					150	2,050	1,750		7,490 15			33,479 02	
Total.....	170,787	21,560	165,040	1,468 07			873 85		93,520	307,655	52,910		77,876 09			891,690 01	

NEW BRUNSWICK

Northern Division.....	2,150	225	12,500			6 25	700	2,350	986 23	19,517 43
Northeastern Division.....	7,420	146	9,800	50 00	248 00		600	2,350	1,157 76	27,521 76
Southwestern Division.....	980		13,000				150	2,575	56 91	17,961 91
Total.....	10,550	371	35,300	50 00	254 25	5,900	2,500	7,875	2,200 90	65,001 15

NORTHWEST TERRITORIES

Fort Resolution.....										142,350 00
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NOVA SCOTIA

Annapolis.....	300		1,800				200	1,400		3,800 00
Antigonish and Guysboro.....	650	125	2,050	79 50			490	1,550		5,294 50
Cape Breton (Eskenazi).....	600	500	3,000				250	600		5,150 00
Cape Breton (Sydney).....			1,800				30	300		2,130 00
Colchester.....	275		2,000				250	2,500		5,025 00
Cumberland.....	225		2,800				150	300		3,475 00
Digby.....	250		1,800				300	1,000		3,850 00
Halifax.....	2,850	1,475	8,050		50 00		500	4,950		17,875 00
Hants (Indian Brook).....	450	35	1,500				100	300		2,385 00
Hants (Windsor).....	200	50	3,000				380	2,200		4,850 00
Inverness.....	120		4,000				200	400		8,880 00
Kings.....	200	15	2,000				100	300		2,882 70
Lunenburg.....	800	150	1,500	330 00	47 70		250	1,200		4,230 00
Pictou.....	1,200	25	4,000				150	500		10,450 00
Richmond.....	150		600				200	300		4,130 00
Shelburne.....	2,500	100	8,000				175	5,265		16,965 00
Victoria.....							400	1,300		3,000 00
Yarmouth.....			1,500				200	1,300		*1,617 18
Total.....	12,300	2,595	53,900	409 50	97 70	2,950	5,730	29,045	*1,617 18	108,644 38

ONTARIO

Alnwick.....	5,000	250	12,000	1,961 75		900	4,000	1,000	10,860 22	35,971 97
Cape Croker.....	7,400	2,200	11,000	275 00		5,200	1,350	2,300	21,713 82	50,297 22
Carleton Place.....	72,925	4,800	82,000	1,893 25	73 40		15,000	2,330	2,509 99	170,238 24
Christian Island.....	1,500		10,000				500	500	2,584 00	29,044 00
Fort Frances.....	4,500	200	3,700		767 95	275	150	1,280 74	13,280 74	24,434 69
Fort Williams.....	8,200	200	30,600	2,442 20	1,025 80	21,500	33,000	8,350	12,815 18	118,133 18
Georgina Island.....	1,650	1,500	40,300	200 00	14,250	6,300	6,125	1,719	14,238 16	92,475 62
Golden Lake.....	1,500	500	10,000	250 00	250	250	1,000	1,000	3,815 58	17,500 58
Gore Bay.....	200		2,000	105 50			1,000	1,000	10,334 94	4,318 09
Kenna.....	10,250	900	25,500		448 40	200	41,450	62,405	21,017 03	48,083 34
Manitowaning.....	6,895		73,290	110 00	3,273 28	73,290	3,660	20,725	275,740 31	275,740 31
Mora.....	46,990	12,650	93,400	80 00	3,704 02	7,725	3,000	2,400	213,109 30	213,109 30
New Credit.....	8,500	2,300	6,000	340 00		150	200	4,450	5,660 09	25,050 09
Parry Sound.....	15,000	2,100	12,000	4,665 00		75	1,125	5,000	4,917 15	39,207 15
Rama.....	7,450	1,375	36,000	255 00	3,660 03		3,500	5,000	17,494 73	67,359 76
Rice Lake.....	2,935	1,394	15,000	102 00	16 05	700	3,500	5,000	7,816 08	35,463 73
Total.....	15,000	6,000	24,000	215 00		1,000	9,500	6,800	8,592 76	71,107 76

*Memoranda of Nova Scotia.

TABLE No. 6.—SOURCES AND VALUE OF INCOME—*Concluded*

Agencies	Value of Farm Products, including Hay	Value of Beef Sold also of that used for Food	Wages Earned	Received from Land Rentals	Received from Timber	Earned by Fishing	Earned by Hunting and Trapping	Earned by other Industries and Occupations	Annuities paid and Interest on Indian Trust Funds	Total Income of Indians
	\$	\$	\$	\$ cts.	\$ cts.	\$	\$	\$	\$ cts.	\$ cts.
ONTARIO—<i>Concluded</i>										
Samia.....	7,050	750	25,000	230 00	15 00	300	250	1,500	16,380 05	51,475 05
Saugeen.....	12,200	400	20,000	108 00	186 00	100	1,300	3,100	16,449 70	45,843 70
Sault Ste. Marie.....	16,500	2,800	20,000	200 00	12,915 82	13,200	12,500	12,500	12,860 08	138,543 50
Saugeen.....	2,770	100	65,610	50 00	21,693 84	60,570	35,070	46,760	6,120 00	238,643 84
Savanne.....	2,200	100	139,500	2,195 00	66 88	60	800	1,000	1,214 81	384,948 81
St. Nations.....	154,000	500	40,500	50 00	14 88	2,300	11,500	23,000	43,217 00	350,079 07
St. Georges Falls.....	67,400	33,000	33,000	50 00	558 65	1,000	6,100	7,350	6,726 09	192,185 07
Thessalon.....	94,000	3,000	45,000	7,008 95	3,500	3,500	4,000	4,000	3,406 56	182,225 88
Wabigoon.....	27,840	3,670	23,800	3,443 00	729 49	525	1,200	8,600	2,652 76	72,770 25
District of Patricia.....				456 48					16,288 00	16,288 00
Georgina Bay Islands.....										456 48
Total.....	609,355	44,589	884,760	27,141 13	62,127 95	207 070	192,685	267,689	374,500 44	2,669,927 52
PRINCE EDWARD ISLAND.....										
	2,150	350	950			950	500	5,300		10,200 00
QUEBEC										
Becancour.....	80	225	4,000	400 00	7 40	20	90	318 23	6,185 38	740 63
Bersimis.....	900	350	2,500			400	300	3,000	494 22	89,235 38
Cacouna.....			150,000	8,128 00			1,500	30,000	228 45	3,344 22
Caughnawaga.....	36,000	3,500	30,000	236 00	2,556 46	126	21,080	30,500	709 02	227,856 45
Jeune Lorette.....	8,344	512	37,765	236 00				2,267	3,787 66	62,709 02
Maniwaki.....	600		3,000					350		76,669 12
Maria.....							10,500	1,000	10,850 00	3,900 00
Mingan.....	7,500	2,000			314 40	100	1,000	1,000	375 36	11,489 76
Oka.....	2,500	1,000	3,000	280 80			1,000	5,000	230 54	13,011 34
Pierreville.....	5,509	550	15,000	26 00		1,200	75,000	3,000	618 37	100,903 37
Pointe Bleue.....	11,500	400	8,000	140 00	232 91	150	14,000	1,500	277 59	21,200 50
Restigouche.....			1,500			4,000	3,000	23,000	3,577 31	17,000 00
Seven Islands.....	8,000	2,300	140,000	1,281 94		20,000	1,200		2,469 55	185,159 25
St. Regis.....	2,500	150	6,000							32,319 55
Timiskaming.....										
Total.....	83,433	10,887	400,760	10,492 74	3,111 17	26,046	201,970	100,317	19,271 68	856,388 59
SASKATCHEWAN										
Assiniboine.....	4,075	2,527	909				1,010	5,021	1,297 57	14,929 57
Battleford.....	35,957	12,622	23,865	2,615 00			12,279	2,910	15,565 02	109,865 02
Carlton.....	103,686	19,780	12,270	30 00	4 86		2,388	9,630	20,394 70	187,264 70
Crooked Lakes.....	28,139	4,480	3,573	591 06			3,375	2,160	26,954 65	71,274 71
Duck Lake.....	83,860	14,700	10,400			625	6,600	12,950	8,437 45	137,572 45

	17,400	3,150	2,400	7,000	1,450	5,100	2,075 10	31,575 10
File Hills.....	2,800	250	21,000	7,000	128,000		12,404 54	172,454 54
Isle a la Crosse.....	13,252	1,306	2,700	20,750	3,872	750	2,450 27	24,350 27
Moose Mountain.....	9,775	3,000	2,000	75	200	1,125		16,175 00
Onion Lake.....	47,706	15,150	10,675	10,350	13,300	8,800	6,190 43	112,171 43
Pelly.....	31,750	3,600	1,631 00		2,550		16,605 85	60,336 85
Qu'Appelle.....	41,214	4,900	1,350 00	200	1,030	3,195	25,880 16	77,989 16
Touchwood.....	13,145	6,204	1,200		9,276	6,750	17,565 17	57,715 17
Wood Mountain Reserve.....	1,125		875		80		2	2,082 29
Total.....	433,884	92,269	102,247	22,438	205,410	58,391	155,823 20	1,075,766 26

RECAPITULATION

PROVINCES										
Alberta.....	349,130	82,619	118,132	49,166 07	1,348 29	17,528	69,822	55,884	195,338 97	938,098 33
British Columbia.....	522,905	99,000	866,100	32,702 03	28,349 20	517,295	342,669	190,905	33,180 37	2,633,705 60
Manitoba.....	170,787	21,560	165,040	1,468 07	873 85	93,520	307,655	52,910	77,876 09	891,690 01
New Brunswick.....	10,550	371	35,300	50 00	254 25	5,900	2,500	7,875	2,200 90	65,001 15
Northwest Territories.....						25,350	117,000			142,350 00
Nova Scotia.....	12,300	2,595	53,900	409 50	97 70	2,950	5,730	29,045	1,617 18	108,644 38
Ontario.....	609,355	44,589	884,760	27,141 13	62,127 95	207,070	192,695	269,689	374,500 44	2,669,927 52
Prince Edward Island.....	2,150	350	950			950	500	5,300		10,200 00
Quebec.....	83,433	10,987	400,760	10,492 74	3,111 17	26,046	201,970	100,317	19,271 68	856,388 59
Saskatchewan.....	433,884	92,269	102,247	5,304 06		22,438	205,410	58,391	155,823 20	1,075,766 26
Total.....	2,194,494	354,940	2,627,189	126,733 60	96,162 41	919,047	1,445,951	768,316	859,808 83	9,362,641 84

SCHOOL STATEMENT STATEMENT of Indian Day Schools in the Dominion for the Fiscal Year Ended March 31, 1930

School	Reserve	Agency	Teacher	Number on Roll		Average Attendance	Grades										
				Boys	Girls		Total	I	II	III	IV	V	VI	VII	VIII	IX	
PRINCE EDWARD ISLAND																	
Lennox Island.....	Lennox Island.....	P.E.I. Superintendency.....	John J. Sark.....	14	20	34	21		14	11	4	3	2				
NOVA SCOTIA																	
Afton.....	Afton.....	Antigonish Co.....	Miss C. M. Kennedy.....	15	8	23	12	12	3	3	3	2	2	3			
Esksason.....	Esksason.....	Cape Breton.....	Miss M. MacNeill.....	18	21	39	21	18	7	5	5	2	1	1			
Sydney.....	Sydney.....	"	Miss A. MacNeill.....	18	10	28	17	10	4	5	7	2					
Millbrook.....	Millbrook.....	Colchester.....	Mrs. C. Gallagher.....	11	10	21	14	16	2	4	5	1	1				
Bear River.....	Bear River.....	Digby.....	Mrs. R. L. Ford.....	10	9	19	13	5	1	4	2	1	4	2			
*Shubenacadie.....	Indian Brook.....	Hants.....	Mrs. A. King.....	5	3	8	7										
Malagawatch.....	Malagawatch.....	Inverness.....	Miss M. Kennedy.....	4	7	11	10	4	2	2	2	1					
Whycocomagh.....	Whycocomagh.....	"	Alexander Macdonald.....	23	22	45	18	19	7	8	6	1	4				
Indian Cove.....	Fisher's Cove.....	Pictou.....	Miss G. McGirr.....	14	17	31	20	10	9	4	5	3					
Salmon River.....	Salmon River.....	Richmond.....	Miss E. Gibson.....	13	21	34	16	19	6	5	2	1	1				
Middle River.....	Middle River.....	Victoria.....	R. J. MacNeill.....	11	16	27	15	18	3	2	2	2					
Total, Nova Scotia.....				142	144	286	163	121	47	40	38	21	11	8			
NEW BRUNSWICK																	
Big Cove.....	Big Cove.....	Eastern.....	A. L. Fraser.....	15	18	33	24	9	10	5	7	2					
Burnt Church.....	Burnt Church.....	"	Mrs. A. L. Fraser.....	32	25	57	41	22	6	8	7	10	2				
Eel Ground.....	Eel Ground.....	"	Miss E. Cahoon.....	12	16	28	18	9	3	2	6	4	2				
Eel River.....	Eel River.....	"	Miss I. Fitzgerald.....	14	9	23	18	4	4	5	5		1	4			
Red Bank.....	Red Bank.....	"	Mrs. A. Tremblay.....	6	11	17	13	8	4			5					
Kingsclear.....	Kingsclear.....	Western.....	Mrs. S. M. Kehoe.....	9	10	19	13	4	5	3	1	2	1				
Oronecto.....	Oronecto.....	"	Miss E. O'Brien.....	6	11	17	11	10	3	3	1	2					
St. Mary's.....	St. Mary's.....	"	Miss E. Delaney.....	11	18	29	25	9	5	8	4	2					
Woodstock.....	Woodstock.....	"	Miss M. T. Hughes.....	9	11	20	14	7	2	4	6	1					
			Sr. M. Mercia.....														
			Sr. Catherine.....														
			Sr. M. Praxades.....														
Tobique.....	Tobique.....	Northern.....	Sr. M. Quantin.....	27	28	55	32	13	10	6	9	2	7	8			
			Sr. M. Clare.....														
Total, New Brunswick.....				141	157	298	209	95	52	44	45	25	10	9	18		

*Closed February 28th, 1930, owing to opening of residential school.

QUEBEC

[illegible]

*Seasonal school only.

SCHOOL STATEMENT

STATEMENT of Indian Day Schools in the Dominion for the Fiscal Year ended March 31, 1930—Continued

School	Reserve	Agency	Teacher	Number on Roll		Average Attendance	Grades											
				Boys	Girls		I	II	III	IV	V	VI	VII	VIII	IX			
																Total		
QUEBEC—Concluded																		
*Obedjiwan.....	At Obedjiwan.....	Outside Treaty.....	{ Miss L. M. Sirois..... Mrs. G. Boutin..... Miss J. Vaillancourt..... Miss W. Foy.....	26	26	52	40											
*Weymontaching.....	At Weymontaching.....			"	16	15	31	20										
Total, Quebec.....						713	720	1,433	1,046	629	272	204	139	104	55	19		11
ONTARIO																		
Alnwick.....	Alnwick.....	Alnwick.....	Miss D. Atkinson.....	25	17	42	28											
Cape Croker.....	Cape Croker.....	Cape Croker.....	Miss Violet Nadiwan.....	16	13	29	17	7	5	3	6	8						
Port Elgin.....	Cape Croker.....	Cape Croker.....	Mrs. Sarah Bell.....	13	12	25	18	15	2	4	3					1		
Sidney Bay.....	Cape Croker.....	Cape Croker.....	Miss G. Edington.....	6	9	15	8	5	2	3	1				3			
Back Settlement.....	Caradoc.....	Caradoc.....	Miss H. M. Howe.....	15	17	32	20	17	4	3	6	1			5			
Bear Creek.....	"	"	Miss M. A. Baird.....	17	10	27	16	8	4	2	5	2			2			
"	"	"	Miss B. Comfort.....	9	4	13	11	4	2	3	2				2			
Oneida.....	"	"	Miss E. Hammond.....	28	32	60	23	4	5	8	2				3	1		
Oneida No. 2.....	"	"	Miss V. M. Gast.....	22	22	44	24	27	7	2	4	1			3			
Oneida No. 3.....	"	"	Miss L. G. Radford.....	8	8	16	10	4	1	2	2				2	3		
River Settlement.....	Caradoc.....	Christian Island.....	R. Cowling.....	24	31	55	30	39	4	8	3	1						
Christian Island.....	Christian Island.....	Fort Frances.....	Miss D. B. McArdle.....	14	14	28	11	19	6	2	1							
Manitou Rapids.....	Manitou Rapids.....	Fort William.....	Miss T. McCoy.....	18	14	32	19	7	11	4	5	4			1			
Gouais Bay.....	Gouais Bay.....	"	Miss T. Hamer.....	17	35	52	25	29	3	1	1							
Gull Bay.....	"	"	Miss E. Leusch.....	12	6	18	11	5	1	5					4	3		
Lake Helen.....	At Lake Helen.....	"	Miss C. M. Lavallee.....	11	7	18	14	7	4	3	1				3			
Mission Bay.....	Fort William.....	"	Geo. W. Vesey.....	17	14	31	25	26	5									
Moabert.....	Moabert.....	"	Miss K. G. O'Hara.....	24	21	45	38	27	4	11	3	4			2			
Pic.....	Pic.....	"	Miss C. Troy.....	12	12	24	21	7	7	6	5	4			2			
Sand Point.....	Sand Point.....	"	Miss E. M. Robicheau.....	7	5	12	10	3	1	3	6	5			2	3		
Batchawana.....	Batchawana Bay.....	"	Gilbert A. Sim.....	12	12	24	14	7	2	3	6	5			1	1		
Garden River C. E.....	Garden River.....	"	Miss C. O'Driscoll.....	27	32	59	39	21	7	6	8	8			5	4		
Garden River R. C.....	"	"	Miss S. Fex.....															
Georgina Island.....	Georgina Island.....	Georgina Island.....	R. A. Gibson.....	10	5	15	10	1	4	1	2	3	4					
Golden Lake.....	Golden Lake.....	Golden Lake.....	Miss J. Currier.....	19	23	42	26	17	6	9	8	2						
Shesheganwan C. E.....	Shesheganwan.....	Gore Bay.....	Miss L. Jackson.....	4	4	8	4	5	1						2			
Shesheganwan R. C.....	"	"	Miss V. La Victoire.....	5	6	11	8	3	3	1								
West Bay.....	West Bay.....	"	Miss V. McCarthy.....	17	25	42	30	19	6						1			
Whitfish Bay.....	Whitfish Bay.....	Kenora.....	D. Ducharme.....	12	10	22	14	6	4	3	5	4			2			
Birch Island.....	Whitfish River.....	Manitowaning.....	Miss M. Winn.....	11	19	30	24	11	6	4	7				2			
Buzwah.....	Buzwah.....	"	Miss L. Sloan.....	13	7	20	12	7	4	8	1							
Kaboni.....	Kaboni.....	"	Miss C. McGuire.....	12	14	26	17	11	5	3					2			
Sheguandah C. E.....	Sheguandah.....	"	Mrs. A. J. Abbott.....	7	9	16	7	11	1	2								
Sheguandah R. C.....	"	"	Miss A. Hare.....	10	14	24	13	10	4	7	3				1			
Sucker Creek.....	Sucker Creek.....	"	Miss J. I. Weeks.....	5	7	12	7	5							5	1		

Whitefish Lake.	Whitefish Lake.	"	Miss S. M. King.	11	14	25	15	9	5	1	4	6
Wikwemikong.	Wikwemikong.	"	Miss S. J. Burke.	38	26	64	47	33			16	6
Moraviantown.	Moravian.	Moravian.	Miss J. Charlebois.	14	24	38	21	17	7	7	2	
New Credit.	New Credit.	New Credit.	Rev. H. Wulbert.	13	9	22	15	9	7	7	2	
Doks.	Doks.	Nipissing.	Walter E. Cudbert.	17	19	36	25	9	7	5	9	3
*Garden Village.	Nipissing.	"	Basil Horn.	22	22	45	21	33	4	4	4	
Temagami.	Bear Island.	"	Miss L. Addey.	15	16	31	18	20	2	8	1	
Gibson.	Watha.	Parry Sound.	Miss J. McDermott.	21	10	31	16	9	6	6	2	3
Lower French River.	Lower French River.	"	Rev. J. A. Ward.	9	8	17	10	13	1	1	2	
Magnetawan.	Magnetawan.	"	Miss C. McCool.	8	4	12	10	7	1	1	1	
At Moose Deer Point.	At Moose Deer Point.	"	Miss I. Pelletier.	11	3	15	9	9	4	1	1	
Ryerson.	Parry Island.	"	Miss E. Donald.	17	3	24	13	10	4	5	6	
Shawanaga.	Shawanaga.	"	Mrs. E. English.	19	17	26	26	12	5	12	3	4
Rama.	Rama.	Rama.	Miss E. Willox.	17	34	51	36	8	6	8	8	5
Mud Lake.	Mud Lake.	Rice Lake.	Miss R. McKinnon.	29	53		40	23	10	14	6	
Kettle Point.	Kettle Point.	Sarnia.	Miss J. Scott.	22	12	34	16	11	10	7	3	
St. Clair.	St. Clair.	"	H. D. Watts.	17	24	41	27	21	7	7	3	
Stony Point.	Stony Point.	"	W. E. Windover.	13	16	8	7	3	1	2	1	
French Bay.	Saugeen.	Saugeen.	Miss A. Landon.	5	13	18	13	16	1	1	2	
Saugeen.	"	"	P. H. Gentleman.	13	10	23	17	8	7	3	4	
"	"	"	W. M. Knechtel.	17	10	23	17	8	7	3	4	
Scotch Settlement.	"	"	Miss M. Corbett.	17	10	27	17	12	9	1	4	
Six Nations No. 1.	Six Nations.	Six Nations	Miss J. Jamison.	22	25	47	28	9	9	8	12	9
" 2.	" 2.	"	Miss V. Davis.	26	38	64	50	16	5	30	13	
" 3.	" 3.	"	Miss N. E. Jamieson.	34	28	62	37	4	22	6	10	5
" 4.	" 4.	"	Miss E. Garlow.	18	11	29	23	6	4	11	4	8
" 5.	" 5.	"	Miss M. Miller.	16	12	28	18	6	3		7	4
" 6.	" 6.	"	Miss M. Frohman.	16	17	33	14	3		7	4	1
" 7.	" 7.	"	Miss M. Hill.	31	23	54	26	23	4	9	5	7
" 8.	" 8.	"	Mrs. R. M. Pleasant.	16	13	29	17	10	1	9	4	5
" 9.	" 9.	"	Mr. K. Hill.	19	22	41	25	14	11	3	3	8
" 10.	" 10.	"	Miss E. General.	26	26	52	31	14	5	1	5	6
" 11.	" 11.	"	Miss V. Hill.	45	32	77	41	8	7	5	6	6
Spanish River Protestant.	Spanish River.	Thessalon.	Winton Loft.	28	26	52	31	14	5	1	5	6
Mississauga River.	Mississauga.	"	Mrs. G. Atkins.	46	32	77	41	8	7	5	6	6
Sagamook.	Sagamook.	"	Mrs. J. Buell.	7	9	16	6	9	5	2		
Serpent River.	Serpent River.	"	Miss M. A. McDermott.	12	15	27	16	4	5	6	4	8
* Abitibi.	Kewabuteh.	"	Miss H. T. Connolly.	7	7	14	5	7	4	3		
Albany River.	At Abitibi.	Treaty No. 9.	Miss A. Bush.	8	18	26	17	3	10	9	3	1
*English River.	At Albany River.	"	Miss K. McLaren.	25	20	45	29	41	4			
Fort Hope.	At English River.	"	Rev. P. A. Northam.	19	45	22	13	8	12	9	2	1
Moose Fort.	At Fort Hope.	"	J. T. Walker.	12	15	27	26	27				
Tyendinaga Central.	At Moose Fort.	"	Rev. D. Macdonald.	11	29	11	20	4	3	2		
Tyendinaga Eastern.	Tyendinaga.	"	S. Waller.	22	22	44	36	20	6	10	7	1
Tyendinaga Mission.	"	"	Miss L. M. Bell.	9	12	21	14	6	1	8	3	3
Tyendinaga Western.	"	"	Miss G. Swerdiger.	24	19	43	24	18	6	9	9	2
Walpole Island No. 1.	Walpole Island.	"	Thos. E. Emmons.	16	17	33	18	12	7	7	6	1
Walpole Island No. 2.	Walpole Island.	Walpole Island.	Miss E. M. John.	12	8	20	10	14		2	1	
"	"	"	Mrs. H. Macpherson.	12	8	20	10	14		2	1	
"	"	"	Mrs. E. MacDougall.	40	28	68	41	31	10	1	6	11
"	"	"	Mrs. E. E. George.	20	22	42		23	3	8	7	1
Total, Ontario.				1,345	1,282	2,627	1,638	1,116	382	357	344	212
											87	43
												56

*Seasonal school only.

SCHOOL STATEMENT

STATEMENT of Indian Day Schools in the Dominion for the Fiscal Year ended March 31, 1930—Continued

School	Reserve	Agency	Teacher	Number on Roll		Average Attendance	Grades								
				Boys	Girls		I	II	III	IV	V	VI	VII	VIII	IX
MANITOBA															
Berens River (United Church).	Berens River.	Claudeboye.	C. D. Street.	22	21	43	13	2	5	10	7	4	2		
Berens River (R.C.).	"	"	Rev. F. Leach, O.M.I.	12	8	20	14	3	3	2	7	4	1		
Black River.	"	"	Geo. Slater.	3	9	12	5	9							
Brokenhead.	"	"	Rev. F. Longmore.	14	14	28	16	12	10	5	1				
Bloodvein.	"	Claudeboye.	Joseph Inglett.	9	15	24	8	15	9						
Fort Alexander (Upper).	Fort Alexander.	"	Mrs. C. R. Harbord.	14	16	30	14	11	13	5	1				
Grand Rapids.	Grand Rapids.	"	R. B. Horsefield.	10	9	19	10	13	3	3					
Hollowwater River.	Hollowwater River.	"	E. W. Cathcart.	7	15	22	10	18	3	1					
Little Grand Rapids.	"	"	L. L. Schuetze.	13	14	27	17	8	2						
Church.	"	"	B. Guimond.	9	6	15	11	10	5						
Little Grand Rapids (R.C.).	"	"	Jas. Kirkness.	16	17	33	27	32	4	5	10				
Pekangikum.	"	"	Mrs. C. M. Caldwell.	15	11	26	19	14	20	13	10	5	2		
Poplar River.	"	Fisher River.	W. G. Tong.	41	38	79	44	29	20	13	10	5	2		
Fisher River.	"	"	Mrs. W. G. Tong.	13	12	25	13	15	2	1	4	2	1		
Jackhead.	"	"	Joseph Everett.	13	17	30	18	25	5						
Peguis Centre.	"	"	Miss E. Lee.	17	16	33	20	14	6	10	3				
Peguis North.	"	"	Miss N. Collen.	17	16	33	20	14	6	10	3				
Peguis South.	"	"	Miss J. Wright.	27	32	59	29	24	10	14	7	4			
Oak River.	"	Griswold.	Mrs. W. H. Stapleton.	18	16	34	20	25	9						
Ebb and Flow.	"	"	A. G. Taggart.	12	12	24	16	14	5	3	2				
Fairford.	"	Manitowapah.	Susan Miller.	34	30	64	34	25	14	7	9	8	1		
"	"	"	Miss N. Skatfield.	8	16	24	15	12	11	1					
Lake Manitoba.	"	"	Miss A. Dorion.	22	20	42	21	24	8	8	2				
Lake St. Martin.	"	"	C. Garwood.	8	12	20	14	16	2	1					
Little Saskatchewan.	"	"	A. Wheldon.	6	17	23	16	17	4	2					
Pine Creek.	"	"	Rev. J. Brachet, O.M.I.	17	14	31	18	28	1	2					
Shoal River.	"	"	Chas. E. Cooke.	8	14	22	17	7	5	5	5				
"	"	"	Sr. P. Fuller.	9	9	18	9	10	3	1	4				
Waterhen River.	"	Norway House.	Miss A. M. Brigham.	18	12	30	14	30							
Cross Lake.	"	"	J. H. Low.	8	7	15	6	14	1						
Island Lake.	"	"	H. Amiard.	26	23	49	25	27	6	6	4	3	2		
Island Lake (United Church).	"	"	Miss M. E. Nix.	27	20	47	23	38	9	9	2		1		
Jack River (R.C.).	"	"	St. St. Eugenie.	23	25	48	20	38	4	4	2				
Jack River (R.C.).	"	"	Fred Stevens.	16	19	35	16	25	5	2	1	1	1		
Oxford House.	"	"	John Gordon.	13	14	27	21	19	6	2	3				
* York Factory.	"	"	Geo. Basham.	11	14	25	19	9	7	2	3	5	1		
Big Eddy.	"	Pas.	Miss L. Milten.	10	5	15	12	13	2						
Chomahawin.	"	"	J. L. Ball.	11	13	24	12	24	1						
Nelson House (United Church).	"	"	N. S. Gaudin.	10	12	22	9	20	1						
Nelson House (R.C.).	"	"	R. G. Lauze.	22	9	31	21	10	9	6	6	2	3		
Pas.	"	"	J. P. Humberstone.	7	4	11	9	2	3	7			1		
Pine Bluff.	"	"	Paul Scottoe.	9	6	15	13	7	2	6					
Pine Bluff.	"	"	D. C. Wickenden.	9	6	15	13	7	2	6					

Shoal Lake.....	"	F. J. Daniels.....	5	7	12	9	6	2	117	47	15	4	3
Split Lake.....	"	J. L. C. Harrison.....	20	17	37	25	16	13	8	5	3		
Swan Lake.....	"	Rev. J. E. Cooper.....	16	13	29	19	9	7	5				
		{ Mrs. J. E. Cooper.....											
Total, Manitoba.....			649	650	1,299	742	734	244	135	117	15	4	3
SASKATCHEWAN													
Assiniboine.....	Assiniboine	Miss F. M. Hodgson.....	16	19	35	22	22	5	3				
Little Pines.....	Battleford.....	Miss A. L. Cunningham.....	21	11	32	28	6	5	7	8	5		1
	"	Miss I. M. Faithull.....											
Red Pheasant.....	"	H. Reynolds.....	15	15	30	14	17	6	7				
Thunderchild.....	"	Miss M. Fielder.....	18	11	29	22	12	3	6	8			
Ahtahkakoops.....	Carlton.....	E. B. Goodman.....	12	14	26	15	15	5	2	3	1		
Big River.....	"	J. R. Settee.....	12	14	26	15	15	5	8	2	2		
Little Red River.....	"	H. W. Shaw.....	6	10	16	10	13	1	2				
	"	Mrs. H. W. Shaw.....											
Mistawasis.....	"	Miss S. McQueen.....	6	7	13	8	10	1	1				
Montreal Lake.....	"	J. L. Lowe.....	18	9	27	17	15	4	5	3			
Sturgeon Lake.....	"	Rev. F. J. Fife.....	11	10	21	10	16	3	1				
Fort-Ja-Corne South.....	Duck Lake.....	Mrs. M. Burbridge.....	11	18	29	17	18	10	2	8			
James Smith.....	"	Rev. E. V. Bird.....	10	13	23	16	11	8					
John Smith.....	"	Rev. G. J. Waite.....	9	7	16	11	6		2	4	3		
White Bear s.....	Moose Mountain.....	Miss M. Anderson.....	12	7	19	11	11	4	3	1			
Whitcap Sioux.....	Moose Woods.....	Miss H. J. Hare.....	4	7	11	10	7	3					
Cold Lake.....	Onion Lake.....	C. P. Hebert.....	10	16	26	11	10	8	7	1			
	"	Mrs. C. P. Hebert.....											
Frog Lake.....	"	A. E. Peterson.....	9	8	17	7	9	4	3	1			
Long Lake.....	"	J. F. Dion.....	7	4	11	5	6	3					
	"	Mrs. J. F. Dion.....											
Ministikan.....	"	Jos. Chamberlain.....	11	6	17	12	16						
Cote s.....	Pelly.....	Mrs. D. R. Fraser.....	25	11	36	28	11	9	8				
	"	Mrs. R. F. Roy.....											
Key's.....	"	W. J. D. Kerley.....	6	2	8	7	2	2	1	1	1		
Day Star s.....	Touchwood.....	Rev. H. G. L. Watts.....	8	10	18	15	7	2	6	4			
Fishing Lake.....	"	Rev. A. J. Lawes.....	7	10	11	10	7	4	6				
*Pelican Narrows.....	Treaty 10.....	D. C. Wickenden.....	12	16	28	19	24	4					
*Stanley.....	"	H. E. Hives.....	20	16	36	18	33	3					
Total, Saskatchewan.....			296	271	567	357	302	102	86	56	12	8	1
ALBERTA													
Old Sun's.....	Blackfoot.....	Rev. F. M. R. Gibney.....	45	38	83	30	40	13	8	15	4	3	
	"	Miss C. Hauser.....											
Sarcee.....	Sarcee.....	Miss W. A. Tims.....	7	16	23	21	1	6	9	2			
Morley.....	Stoney.....	Miss M. K. Graham.....	4	5	9	4	8		1			5	
	"												
Total, Alberta.....			56	59	115	55	49	19	17	18	4	3	5
NORTHWEST TERRITORIES													
*Fort McPherson.....	At Fort McPherson.....	Rev. J. Morris.....	8	14	22	8	22						
Fort Simpson.....	At Fort Simpson.....	Sr. A. Gamache.....	10	11	21	17	10		9	1	1		
*St. David's Mission.....	"	Rev. F. Clark.....	7	7	14	4	10	4					
Fort Smith.....	Fort Smith.....	St. Bourlata.....	7	4	11	6	9	1	1				
	"												
Total, Northwest Territories.....			32	36	68	35	51	5	10	1	1		

*Seasonal school only.

SCHOOL STATEMENT

STATEMENT of Indian Day Schools in the Dominion for the Fiscal Year ended March 31, 1930—Concluded

School	Reserve	Agency	Teacher	Number on Roll		Average Attendance	Grades										
				Boys	Girls		Total	I	II	III	IV	V	VI	VII	VIII	IX	
BRITISH COLUMBIA	Fort Babine.....	Babine.....	J. F. Morris.....	11	24	35	15	9	10	11	5						
	Glen Vowell.....	"	Miss E. C. Brierley.....	7	8	15	7	9	4	1	1						
	Hazelton.....	"	Mrs. E. Dugate.....	25	14	39	18	33	2	2	2						
	Kispox.....	"	Miss H. Earle.....	19	13	32	16	20	5	2	2						
	Kitsegukla.....	"	G. J. C. Ede.....	17	15	32	13	27	3	2							
	Kitwanga.....	"	Mrs. M. Ashmore.....	19	14	33	9	17	7	2							
	Rocher Deboile.....	"	S. Browning.....	16	6	22	6	6	8	2	4	2					
	Bella Bella.....	Bella Coala.....	Mrs. S. Browning.....	17	25	42	15	25	14	2	1						
	Bella Coala.....	"	Miss E. J. Follett.....	15	12	27	14	13	9	2	3						
	Kitimaat.....	"	Mrs. I. Snodgrass.....	25	23	48	22	35	5	6	2						
	Klenutu.....	"	Miss H. Guild.....	11	9	20	9	8	5	3	4						
	Cowichan.....	"	Mrs. C. Rey.....	8	19	27	8	15	9	3							
	Koksilah.....	"	Miss A. M. Cliff.....	6	11	17	8	12	1	4	5	2					
	Nanaimo.....	"	Miss E. S. Klippert.....	24	14	38	17	23	4	4	5	2					
	Songhees.....	"	Miss J. Hindle.....	4	9	13	7	7	1	2	2	1					
	Shuluc.....	Kamloops.....	A. E. Fyall.....	10	8	18	11	11	5	2							
	Alert Bay.....	Nimkish.....	G. M. Luther.....	9	18	27	18	12	8	5	2						
	Kingcome Inlet.....	At Kingcome Inlet.....	Miss E. I. Dyer.....	20	27	47	16	42	3	2							
	Fort Rupert.....	At Fort Rupert.....	Miss V. A. Cadwallader.....	6	10	16	7	13	2	1							
	Mamalikulla.....	"	Miss M. E. Nixon.....	7	16	23	8	13	5	5							
	Smith's Inlet.....	Kwshela.....	Miss W. Potter.....	4	6	10	10	10									
	Cape Mudge.....	"	Mrs. F. Howard.....	12	15	27	16	23	1	3	3	1					
	Boothroyd.....	"	Miss L. Blackford.....	8	9	17	13	5	5	3	3	1					
	Seabird Island.....	"	Miss M. Wadel.....	11	9	20	15	9	7	3	1						
	Seton Lake.....	"	J. T. Kiernan.....	9	6	15	8	8	2	4	1						
	Chehalis.....	New Westminster.....	J. W. Burns.....	5	9	14	7	9	4	1							
	Katzie.....	"	Miss M. Boeur.....	7	8	15	8	4	5	1	3	2					
	Skwah.....	"	J. J. Maroney.....	13	14	27	22	4	3	5	10	5					
	Okanagan.....	"	Anthony Walsh.....	5	11	16	10	4	2	1	4	3	2				
	Osoyoos.....	"	F. G. M. Grist.....	10	3	13	8	5	1	2	2	1	2				
	Penticton.....	"	Miss C. M. MacLennan.....	10	4	14	7	7	3	2	2	1					
	Masset.....	Queen Charlotte.....	Miss A. Roode.....	59	60	119	41	70	12	14	12	7	1	3			
		Miss E. Mitchell.....															
		Mrs. E. Wark.....															
		Miss J. Wark.....															
Skidegate.....	"	Rev. H. Flores.....															
		James Oliver.....															
Gitladamicks.....	Kitladamax.....	Rev. H. Flores.....															
Hartley Bay.....	Hartley Bay.....	James Oliver.....															
Kincolith.....	"	Miss H. M. Young.....															
Kitkatla.....	"	Bert Sherman.....															
Kitsegukla.....	"	Chas. M. MacKinnon.....															
Kitseelas.....	"	W. W. Moore.....															
Lakalap.....	"	Mrs. Isobel Moore.....															
Metlakatla.....	Metlakatla.....	T. A. Bryant.....															

[illegible]

*Seasonal school only.

SCHOOL STATEMENT

STATEMENT of Indian Residential Schools in the Dominion for the Fiscal Year ended March 31, 1930

School	Post Office Address	Agency	Principal	Denomination	Number on Roll		Average attendance	Grades										
					Boys	Girls		Total	I	II	III	IV	V	VI	VII	VIII	IX	
ONTARIO																		
Albany Mission.....	Fort Albany.....	Treaty No. 9.....	Rev. A. Bilodeau, O.M.I.	Roman Catholic.....	12	26	38	37	25	9	3	.....	.....	1	.....	.....	.....	.....
Cecilia Jeffrey.....	Kenora.....	Kenora.....	E. W. Byers.....	Presbyterian.....	41	46	87	98	64	6	6	.....	.....	5	1	.....	.....	.....
Chapleau.....	Chapleau.....	Chapleau.....	Canon A. J. Vale.....	Church of England.....	59	51	110	91	49	12	14	26	.....	9	.....	.....	.....	.....
Fort Frances.....	Fort Frances.....	Fort Frances.....	Rev. H. M. Brassard, O.M.I.	Roman Catholic.....	41	56	97	82	39	11	19	11	6	11	.....	.....	.....	.....
Fort William.....	Fort William.....	Fort William.....	Sister M. St-George.....	Roman Catholic.....	42	50	92	60	39	21	14	14	4	.....	.....	.....	.....	.....
Kenora.....	Kenora.....	Kenora.....	Rev. J. E. Baillargeon, O.M.I.	Roman Catholic.....	33	50	83	74	45	11	19	.....	5	3	.....	.....	.....	.....
Mohawk.....	Brantford.....	Six Nations.....	Rev. H. W. Snell.....	Church of England.....	66	90	156	129	16	17	14	34	17	14	23	20	1	.....
Moose Fort.....	Moose Fort.....	Treaty No. 9.....	Rev. Jos. Blackburn.....	Church of England.....	16	16	32	29	9	6	8	1	.....	.....	.....	.....	.....	.....
Mount Elgin.....	Muncy.....	.....	Rev. S. R. McVitty.....	United Church.....	72	90	162	141	25	23	16	11	21	23	25	8	10	.....
McIntosh.....	McIntosh.....	Savanne.....	Rev. C. Perreault, O.M.I.	Roman Catholic.....	31	47	78	70	47	11	10	10	.....	.....	.....	.....	.....	.....
Shingvauk Home.....	Sault Ste. Marie.....	Garden River.....	Rev. C. F. Hives.....	Church of England.....	37	46	83	76	32	21	11	8	3	1	.....	.....	.....	.....
Sioux Lookout.....	Sioux Lookout.....	Kenora.....	Rev. J. F. J. Marshall.....	Church of England.....	56	55	111	90	52	59	.....	.....	.....	.....	.....	.....	.....	.....
Spanish.....	Spanish.....	.....	Rev. C. Bélanger, S.J.	Roman Catholic.....	122	121	243	232	71	58	37	53	24	.....	.....	.....	.....	.....
Total, Ontario.....	.....	.....	.....	.....	628	744	1,372	1,189	513	264	171	181	87	62	48	35	11	.....
MANITOBA																		
Birtle.....	Birtle.....	Birtle.....	Rev. H. B. Currie.....	Presbyterian.....	33	52	85	77	26	9	12	11	7	4	7	7	2	.....
Brandon.....	Brandon.....	Brandon.....	Rev. J. A. Doyle, D.D.	United Church.....	45	35	80	57	35	5	8	8	9	3	7	1	4	.....
Cross Lake.....	Cross Lake.....	Norway House.....	Rev. G. E. Trudeau, O.M.I.	Roman Catholic.....	49	49	98	88	29	11	17	14	15	7	5	.....	.....	.....
Elkhorn.....	Elkhorn.....	.....	Rev. F. Eley.....	Church of England.....	93	75	168	147	58	20	28	30	21	8	3	.....	.....	.....
Fort Alexander.....	Fort Alexander.....	Clandeboyne.....	Rev. L. Kalmes, O.M.I.	Roman Catholic.....	41	47	88	82	22	24	3	12	9	16	2	.....	.....	.....
MacKay.....	The Pas.....	Pas.....	Rev. A. Fraser.....	Church of England.....	46	37	83	73	27	20	6	7	9	9	3	2	.....	.....
Norway House.....	Norway House.....	Norway House.....	J. T. Blackford.....	United Church.....	50	55	105	102	23	22	11	17	9	14	2	7	.....	.....
Pine Creek.....	Camperville.....	Manitowapah.....	Rev. J. Brachet, O.M.I.	Roman Catholic.....	43	42	85	82	28	2	25	14	10	5	1	.....	.....	.....
Portage la Prairie.....	Portage la Prairie.....	Portage la Prairie.....	Rev. W. A. Hendry.....	United Church.....	47	59	106	95	26	13	12	17	15	18	5	.....	.....	.....
Sandy Bay.....	Marius.....	Manitowapah.....	Rev. O. Chagnon, O.M.I.	Roman Catholic.....	39	41	80	74	18	28	14	12	7	1	.....	.....	.....	.....
Total, Manitoba.....	.....	.....	.....	.....	486	492	978	877	292	154	136	142	111	85	35	17	6	.....

Beauval.....	Beauval.....	Rev. M. Adam, O.M.I.	2	22	24	20	8	12	2	2
Cowesses.....	Marieval.....	Rev. J. Carriere, O.M.I.	40	41	81	30	11	12	10	8
Duck Lake.....	Duck Lake.....	Rev. H. Delmas, O.M.I.	79	75	154	147	51	22	28	7
File Hills.....	File Hills.....	F. Rhodes.....	45	49	94	86	15	24	22	38
Gordon's.....	Punichy.....	Rev. J. Stanford.....	24	16	40	36	14	4	5	5
Guy.....	Sturgeon Landing.....	Rev. N. Doyon, O.M.I.	66	48	114	108	28	35	33	13
Lac La Ronge.....	Lestock.....	Rev. G. W. Fisher.....	49	66	115	100	42	19	14	26
Muscowean.....	Touchwood.....	Rev. J. Poulet, O.M.I.	34	38	72	67	13	14	16	19
Onion Lake, C.E.....	Lloydminster.....	Rev. A. Rault, O.M.I.	48	51	99	90	21	16	13	5
Onion Lake, R.C.....	Lloydminster.....	Rev. J. A. Thérien, O.M.I.	60	58	118	93	74	18	12	4
Qu'Appelle.....	Lobret.....	Rev. G. Léonard, O.M.I.	127	143	270	230	61	48	32	26
Round Lake.....	St. Catharines.....	Rev. R. J. Ross.....	35	55	90	78	34	17	9	13
St. Philips.....	St. Philips.....	Rev. C. Brouillet, O.M.I.	26	25	51	48	29	17	2	3
Thunderchild.....	Delmas.....	Rev. D. Dubois, O.M.I.	45	60	105	99	31	7	20	19
Total Saskatchewan.....	Total Saskatchewan.....		680	747	1,427	1,276	443	259	207	204
ALBERTA.....	ALBERTA.....									
Blood.....	Cardston.....	Rev. E. Ruess, O.M.I.	55	65	120	112	56	13	19	15
Blue Quills.....	Sacred Heart.....	Rev. Jos. Angin, O.M.I.	38	32	70	55	24	8	7	9
Crowfoot.....	Cluny.....	Rev. J. Riou, O.M.I.	35	34	69	62	25	13	3	16
Edmonton.....	Edmonton.....	Rev. J. F. Woodsworth, O.M.I.	82	88	170	153	63	15	22	23
Ermineskins.....	Hobbema.....	Rev. P. P. Moulin, O.M.I.	67	59	126	121	53	19	23	9
Holy Angels.....	Fort Chippewyan.....	Sister M. Z. Dufault.....	15	28	43	41	21	5	3	3
Lesser Slave Lake.....	Grouard.....	Rev. W. J. Kent.....	9	10	19	16	3	2	6	3
Morley.....	Morley.....	Rev. E. J. Staley.....	30	36	66	64	23	15	18	4
St. Albert.....	St. Albert.....	Sister Proulx.....	52	84	136	121	67	14	9	16
St. Bernard.....	Grouard.....	Rev. Y. M. Flock, O.M.I.	36	43	79	60	23	18	17	6
St. Bruno.....	Grouard.....	Rev. J. B. H. Giroux, O.M.I.	52	50	102	90	33	11	15	10
St. Cyprien.....	Brocket.....	V. S. Lord.....	13	18	31	29	12	6	2	4
St. Paul's.....	Cardston.....	Canon S. Middleton.....	39	86	125	100	45	15	18	25
Sacred Heart.....	Brocket.....	Rev. J. L. Levern, O.M.I.	24	30	54	52	17	7	23	6
Sturgeon Lake.....	Calais.....	Rev. C. Batie, O.M.I.	33	49	82	73	32	12	17	11
Vermilion.....	Ft. Vermilion.....	Rev. Jos. Habay, O.M.I.	16	10	26	15	8	1	3	12
Wabasca, C. E.....	Wabasca.....	Geo. Arnold.....	12	9	21	20	7	3	3	2
Wabasca, R. C.....	Wabasca.....	Rev. A. Rault, O.M.I.	25	30	55	51	11	15	10	4
Whitefish Lake.....	Grouard.....	Rev. C. D. White.....	9	12	21	17	4	2	3	4
Total Alberta.....	Total Alberta.....		642	773	1,415	1,261	527	194	178	169
NORTHWEST TERRITORIES.....	NORTHWEST TERRITORIES.....									
Aklavik.....	Aklavik.....	Sr. A. McQuillan.....	26	18	44	42	14	5	13	12
Fort Resolution.....	Fort Resolution.....	Sr. J. Dussault.....	26	49	75	55	53	9	3	6
Hay River.....	Hay River.....	Rev. W. B. Singleton.....	16	20	36	28	18	4	9	4
Providence Mission.....	Fort Providence.....	Sister Sarasin.....	19	35	54	44	31	9	1	2
Total Northwest Territories.....	Total Northwest Territories.....		87	122	209	169	116	27	34	23

SCHOOL STATEMENT

STATEMENT of Indian Residential Schools in the Dominion for the Fiscal Year ended March 31, 1930—Concluded

School	Post Office Address	Agency	Principal	Denomination	Number on Roll		Average attendance	Grades										
					Boys	Girls		Total	I	II	III	IV	V	VI	VII	VIII	IX	
BRITISH COLUMBIA																		
Ahousaht	Ahousaht	West Coast	Rev. W. R. Wood	United Church	23	20	43	42	11	4	7	5	9	6	1			
Alberni	Alberni	West Coast	Rev. F. E. Pitts	United Church	61	54	115	104	44	12	15	16	12	10		6		
Alert Bay	Alert Bay	Kwakwaka	F. Earl Anfield	Church of England	88	77	165	122	66	18	9	13	10	16	3	10		
Cariboo	150 Mile House	Williams Lake	Rev. V. Rohr, O.M.I.	Roman Catholic	38	61	99	91	14	20	26	19	7	13				
Christie	Kakawis	West Coast	Rev. V. Rossier, O.S.B.	Roman Catholic	47	54	101	95	46	16	15	15	9					
Coqualeetza	Sardis	New Westminster	Rev. G. H. Raley	United Church	123	114	237	207	76	36	48	27	16	13	4	12	5	
Fraser Lake	Lejac	Stuart Lake	Rev. N. Coccola, O.M.I.	Roman Catholic	80	90	170	165	53	40	24	16	25	8		4		
Kamloops	Kamloops	Kamloops	Rev. J. Duplant, O.M.I.	Roman Catholic	133	121	254	225	171	38	27	12	6					
Kitamaat	Kitamaat	Bella Coola	Miss M. Asson	United Church	9	23	32	23	17	3	4	1	5	2				
Kootenay	Cranbrook	Kootenay	Rev. J. M. Patterson, O.M.I.	Roman Catholic	37	49	86	71	21	23	10	21	7	4				
Kuper Island	Kuper Island	Cowichan	Rev. J. Guerts, O.M.I.	Roman Catholic	51	50	101	93	24	33	20	14	10					
Port Simpson	Port Simpson	Skeena	Miss A. S. Myles	United Church	18	18	36	18	3	4	2	1		6	2			
St. George's	Lytton	Lytton	Rev. A. R. Lett	Church of England	87	87	174	154	91	23	11	13	15	9	5	4	3	
St. Mary's Mission	Mission City	New Westminster	Rev. E. Maillard, O.M.I.	Roman Catholic	67	66	133	115	69	26	20	12	5	1				
Sechelt	Sechelt	Vancouver	Rev. J. McCaffrey, O.M.I.	Roman Catholic	42	44	86	80	19	14	19	5	17	4	6	2		
Squamish	North Vancouver	Vancouver	Sister Mary Amy	Roman Catholic	25	27	52	52	24	5	6	4	5	3	5			
Total British Columbia					911	935	1,846	1,657	749	315	263	194	158	95	26	38	8	
YUKON																		
Carcross	Carcross	Yukon	Rev. J. H. Byrne	Church of England	14	17	31	25	2	4	2	17	4	2				
St. Paul's Hostel	Dawson	Yukon	C. F. Johnson	Church of England	11	13	24	22	8	2	6	3	2	3				
Total Yukon					25	30	55	47	10	6	8	20	6	5				

STATEMENT of Combined Public and Indian Day Schools in the Dominion for the Fiscal Year ended March 31, 1930

School	Reserve	Agency	Number on Roll		Average attendance	Grades											
			Boys	Girls		Total	I	II	III	IV	V	VI	VII	VIII	IX		
ONTARIO																	
Hiawatha.....	Near Keene.....	Rice Lake.....															
Honey Harbour.....	Near Midland.....	Parry Sound.....	3	7	10	8											
Mattawa.....	At Mattawa.....	Nipissing.....	14	13	27	13	3	9	8	2							
Whitefish River.....	At Whitefish Falls.....	Manitowaning.....	8	9	17	11	14	1	2	6	3	4					1
Total, Ontario.....			51	55	106	70	44	24	19	11	3	4					1
MANITOBA																	
Moose Lake.....	At Moose Lake.....	Pas.....	8	8	16	8	5	7	3	1							
Patapun.....	At Patapun.....	Clandeboyne.....	5		5	3	4	1									
Total, Manitoba.....			13	8	21	11	9	8	3	1							
SASKATCHEWAN																	
Round Plain.....	Near Prince Albert.....	Carlton.....	2	5	7	5	2	1	2			2					
BRITISH COLUMBIA																	
Telegraph Creek.....	At Telegraph Creek.....	Stikine.....	3	5	8	5	5	*	3								

SCHOOL STATEMENT

STATEMENT showing the enrolment by Provinces in the different classes of schools for the Fiscal Year ended March 31, 1930

RESIDENTIAL SCHOOLS

Province	Number of Schools	Denomination				Number on Roll		Average attendance	Percentage of attendance	Grades									
		Church of England	Presbyterian	Roman Catholic	United Church	Boys	Girls			Total	I	II	III	IV	V	VI	VII	VIII	IX
Ontario.....	13	5	1	6	1	628	744	1,372	1,189	86.66	513	264	171	181	87	62	48	35	11
Manitoba.....	10	2	1	4	3	486	492	978	877	89.67	292	154	136	142	111	85	35	17	6
Saskatchewan.....	14	3	9	9	2	680	747	1,427	1,276	89.41	443	259	207	204	136	137	22	19	6
Alberta.....	19	5	3	12	2	642	773	1,415	1,261	89.11	527	194	198	178	169	100	82	15	6
Northwest Territories.....	4	1	1	3	87	122	209	169	169	80.86	116	27	34	23	4	5	5	5	8
British Columbia.....	16	2	2	9	5	911	935	1,846	1,657	89.76	749	315	263	194	158	95	26	38	8
Yukon.....	2	2				25	30	55	47	85.45	10	6	8	20	6	5	5	5	31
Total, Residential Schools.....	78	20	2	43	13	3,459	3,843	7,302	6,476	88.68	2,650	1,219	1,017	942	671	489	159	124	31

DAY SCHOOLS

Province	Number of Schools	Number on Roll			Average attendance	Percentage of attendance	Grades											
		Boys	Girls	Total			I	II	III	IV	V	VI	VII	VIII	IX			
Prince Edward Island.....	1	14	20	34	21	61.76	14	11	4	3	2							
Nova Scotia.....	11	142	144	286	163	56.99	121	47	40	38	21	11						
New Brunswick.....	10	141	157	298	209	70.13	95	52	44	45	25	10						
Quebec.....	32	713	720	1,433	1,046	72.99	629	272	204	139	104	55						
Ontario.....	81	1,345	1,282	2,627	1,638	62.35	1,116	382	387	344	212	87						
Manitoba.....	44	649	650	1,299	734	57.12	502	185	135	117	47	15						
Saskatchewan.....	25	296	271	567	357	62.96	302	102	86	56	12	8						
Alberta.....	3	56	59	115	55	47.82	49	19	17	18	4	3						
Northwest Territories.....	3	32	36	68	35	51.47	51	10	10	10	1	1						
British Columbia.....	46	693	744	1,437	885	47.66	824	249	169	113	44	28						
Yukon.....	7	68	67	135	61	45.18	85	21	20	7	2	2						
Total, Day Schools.....	264	4,149	4,150	8,299	5,012	60.39	4,020	1,404	1,116	881	474	217						

COMBINED WHITE AND INDIAN SCHOOLS

Ontario.....	4	51	55	106	70	66.03	44	24	19	11	3	4	4	4	4	4	4	4
Manitoba.....	2	13	8	21	11	52.38	9	8	3	1	2	2	2	2	2	2	2	2
Saskatchewan.....	1	2	5	7	5	71.42	2	1	2	2	2	2	2	2	2	2	2	2
British Columbia.....	1	3	5	8	5	62.50	5	3	3	3	3	3	3	3	3	3	3	3
Total, Combined Schools.....	8	69	73	142	91	64.08	60	36	24	12	5	4	4	4	4	4	4	4

SUMMARY OF SCHOOL STATEMENT

Province	Class of Schools			Total Number of Schools	Number on Roll		Average attendance	Percent- age of attend- ance	Grades									
	Day	Resi- dential	Com- bined		Boys	Girls			Total	I	II	III	IV	V	VI	VII	VIII	IX
Prince Edward Island.....	1			1	14	20	34	21	61.76	14	11	4	3	2				
Nova Scotia.....	11			11	142	144	286	163	56.99	121	47	40	38	21	11	8		
New Brunswick.....	10			10	141	137	278	209	70.13	95	52	44	43	25	10	9	18	
Quebec.....	32			32	713	727	1,433	1,046	72.99	629	272	204	139	104	55	19	11	
Ontario.....	81			81	2,024	2,081	4,105	2,897	70.57	1,673	670	577	536	302	153	91	92	11
Manitoba.....	44			44	1,148	1,150	2,298	1,630	70.93	1,035	406	274	260	158	100	39	20	6
Saskatchewan.....	25			25	978	1,023	2,001	1,638	81.85	747	362	289	250	150	145	22	20	
Alberta.....	3			3	698	832	1,530	1,316	86.01	576	213	215	196	173	103	33	15	6
Northwest Territories.....	4			4	119	158	277	234	73.64	167	32	44	24	5	5			
British Columbia.....	46			46	1,607	1,684	3,291	2,347	71.31	1,578	567	432	307	202	123	32	42	8
Yukon.....	7			7	93	97	190	108	56.84	95	27	28	27	8	5			
Total.....	234	78	8	350	7,677	8,066	15,743	11,579	73.55	6,730	2,659	2,157	1,835	1,150	710	253	218	31

INDIAN LAND STATEMENT

SHOWING the Number of Acres of Indian Lands Sold during the year ended March 31, 1930, the total amount of purchase money realized and the quantity of land unsold at that date.

ONTARIO

Town or Township	County or District	Number of Acres Sold	Amount of Sale	Number of Acres Unsold	Remarks
			\$ cts.		
Albermarle.....	Bruce.....			88	
Eastnor.....	".....			358	
Lindsay.....	".....			489	
St. Edmunds.....	".....			206	
Bury townplot.....	".....	9.48	25 00	99.14	
Oliphant.....	".....			40	
Southampton townplot.....	".....			2	
Warton townplot.....	".....			8.05	
Islands Saugeen Peninsula.....	".....			160.05	Some of these lands were resumed by the Department the conditions of sale not having been complied with, so that in certain cases there appears to have been more land remaining unsold at the close of the past fiscal year than remained unsold according to the previous year's report.
White Cloud Island.....	Grey.....			7	
Thessalon townplot.....	Algoma.....			11.80	
Thessalon townplot.....	".....			80	
Havilland.....	".....			80	
Apaquash.....	".....			176.48	
Laird.....	".....			400	
Meredith.....	".....			320	
Vankoughnet.....	".....			516	
Kehoe.....	".....			14,337	
Pennefather.....	".....			193	
Campbell.....	Manitoulin.....	1,218	275 25	1,667	
Carnarvon.....	".....	300	115 00	203	
Sandfield.....	".....	300	265 00	436	
Howland.....	".....	416	50 00	329	
Sheguiandah townplot.....	".....			10	
Sheguiandah township.....	".....			100	
Manitowaning townplot.....	".....	1	245 00	13.33	
Tehkummah.....	".....	303	91 00	2,166	
Bidwell.....	".....	217	40 00	100	
Allan.....	Gore Bay.....	600	185 00	292	
Shaftesbury townplot.....	".....	0.50	25 00	6.50	
Billings.....	".....	112	75 00	200	
Barrie Island.....	".....			2	
Mills.....	".....			29	
Dawson.....	".....	529	200 00	2,844	
Robinson.....	".....	60	15 00	120	
South Baymouth townplot.....	".....	1.09	95 40	129.41	
Meldrum townplot.....	".....			75 19	
Cayuga townplot.....	Haldimand.....			33.36	
Caledonia townplot.....	".....			50	
Shannonville townplot.....	Hastings.....			0.98	
ThurLOW.....	".....			130 00	
Deseronto townplot.....	".....			4 40	
Tyendinaga townplot.....	".....			380	
Bedford.....	Frontenac.....			193	
Wild Lands.....	Rainy River.....			1,696.79	
Long Sault.....	".....	162	486 00	444.62	
Paskinkin.....	".....			162	
Little Forks.....	".....	60.57	60 57	992.63	
Beaucage.....	Nipissing.....			1,168.74	
Commanda.....	".....			18,314.58	
Pedley.....	".....	323	646 00	2,420.38	
Islands in the Georgian Bay.....	Prov. of Ontario.....	2,967.50	30,655 00		
Islands in Otonabee waters.....	Peterborough.....	0.78	200 00		
		7,580.92	33,774 22	52,285 43	

QUEBEC

Ouitchouan.....	Lake St. John.....			3,917.14
Dundee.....	Huntingdon.....			4,057.74
Maniwaki townplot.....	Hull.....			39.61
Temiscamingue.....	Temiskaming.....			1,728.59
Quarante Arpents.....	Quebec.....			19
				9,762.08

INDIAN LAND STATEMENT

SHOWING the Number of Acres of Indian Lands Sold during the year ended March 31, 1930, the total amount of purchase money realized and the quantity of land unsold at that date.—*Concluded.*

NEW BRUNSWICK

Town or Township	County or District	Number of Acres Sold	Amount of Sale	Number of Acres Unsold	Remarks
Tabusintac.....	Northumberland..		\$ cts.	953	
Tobique.....	Victoria.....			283	
				1,236	

MANITOBA

The Pas.....			17,120 00		
Saint Peters.....				1,578	
Long Plain.....				1,496	
				3,074	

SASKATCHEWAN

Little Black Bear.....		3,696	34,634 75	1,547	
Highgate townplot.....			623 40		
Lestock.....	Humboldt.....		210 00		
Muscowequan.....	".....			376 80	
Little Bone.....	".....			4,667 15	
Kamsack.....	".....			3 11	
Crooked Lakes.....	".....	160	3,360 00	1,440 00	
Muscowpetung.....	Assiniboia.....			22 00	
Lakeview townplot.....	".....			97 39	
Last Mountain No. 80A.....	".....			1,207 50	
Cote.....	".....	10	70 00		
Kylemore.....	Humbolt.....			19.39	
Fishing Lake.....	".....	630	13,866 60		
Moosomin and Thunderchild.....	West Sask.....	313	1,890 00	397	
Mistawasis.....	".....	460	13,800 00	500	
Key.....	Humboldt.....			448	
Keeseekoos.....	".....			38	
		5,269	68,454 75	10,763.34	

ALBERTA

Wabamun Reserve.....	North Alberta.....			437	
Wabamun townplot.....	".....			456.13	
Louis Bull.....	".....			315	
Duffield townplot.....	".....		125 00		
Michel.....	".....	470	2,400 00		
Peigan.....	South Alberta.....			12,841	
Sarcee.....	".....			6,650	
Saddle Lake.....	".....			159	
Peace River.....	North Alberta.....	16,116.18	321,868 38	1,425	
		16,586.18	324,393 38	22,283.13	

BRITISH COLUMBIA

Kumcheen Res. No. 1.....	Yale.....	4.50	223 50		
Penticton Res. No. 1.....	".....	78	7,950 00		
Langley Res. No. 2.....	New Westminster.....	7.10	772 90		
		89 60	8,946 40		

GENERAL REMARKS

The land sold during the year amounted to 29,222.70 acres, which realized \$452,663.75. The quantity of surrendered land in the hands of the Department was approximately 199,906.53 acres. The principal outstanding on account of Indian lands sold amounted to \$1,165,980.63, a considerable portion of which has not yet become due.

CIVIL GOVERNMENT, 1929-30

Vote	Grant	Expenditure	Grant not used	Grant exceeded
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
CIVIL GOVERNMENT				
Salaries.....	177,462 50	175,936 64	1,535 86	.....
Contingencies.....	21,500 00	21,373 47	126 53	.....
Balance unexpended.....				1,632 39
	198,962 50	197,300 11	1,662 39	1,632 39

APPROPRIATION ACCOUNTS 1929-30

Civil Government.....	198,962 50	197,300 11	1,662 39	.....
Annuities.....	234,000 00	219,416 00	14,584 00	.....
Nova Scotia.....	82,960 00	82,951 13	8 87	.....
New Brunswick.....	67,824 00	67,791 00	33 00	.....
Prince Edward Island.....	7,255 00	7,250 70	4 30	.....
Ontario and Quebec.....	433,485 10	432,960 71	524 48	.....
Manitoba, Saskatchewan, Alberta and Northwest Territories.....	1,031,257 00	1,031,079 15	177 85	.....
British Columbia.....	577,100 00	576,994 18	105 8	.....
Yukon.....	19,000 00	18,903 30	91 70	.....
General.....	336,500 00	336,264 05	235 95	.....
Indian Education.....	2,330,500 00	2,330,438 21	61 79	.....
Miscellaneous Vote 431.....	500 00	500 00		.....
	5,349,343 70	5,331,853 55	17,490 15	.....
Miscellaneous gratuities.....		650 00		.....
Special account.....	21,917 57	11,749 43	10,168 14	.....
Annuities—				
Treaty 9.....		512 00		
Robinson Treaty.....	234,000 00	6,000 00	14,584 00	
Manitoba, Saskatchewan, Alberta and Northwest Territories.....		212,904 00		
Balance unexpended.....				14,584 00
	234,000 00	219,416 00	14,584 00	14,584 00
Prince Edward Island—				
Salaries.....	1,080 00	960 00	120 00	.....
Relief and seed.....	3,675 00	3,479 00	196 00	.....
Medical.....	1,850 00	2,411 10		561 10
Miscellaneous.....	350 00	250 00	100 00	.....
Roads.....	300 00	150 60	149 40	.....
Grant not used.....				4 30
	7,255 00	7,250 70	565 40	565 40
Nova Scotia—				
Salaries.....	8,260 00	5,988 79	2,271 21	.....
Relief.....	30,000 00	36,627 46		6,627 46
Indian dwellings.....	8,000 00	6,386 80	1,613 20	.....
Medical.....	22,000 00	25,777 41		3,777 41
Miscellaneous.....	7,700 00	3,140 74	4,559 26	.....
Agriculture.....	1,500 00	1,895 30		395 30
Road and dyking.....	5,500 00	3,134 63	2,365 37	.....
Grant not used.....				3 87
	82,960 00	82,951 13	10,809 01	10,809 01
New Brunswick—				
Salaries.....	3,804 00	3,645 00	159 00	.....
Relief.....	28,000 00	37,958 00		9,958 00
Medical.....	12,700 00	15,594 09		2,894 09
Miscellaneous.....	21,870 00	8,961 30	12,908 70	.....

APPROPRIATION ACCOUNTS, 1929-30—Continued

Vote	Grant	Expenditure	Grant not used	Grant exceeded
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>New Brunswick—Concluded</i>				
Agriculture.....	1,000 00	1,432 26		432 26
Roads.....	450 00	200 15	249 85	
Grant not used.....				33 00
	67,824 00	67,791 00	13,317 55	13,317 55
<i>Ontario and Quebec—</i>				
Relief and Medical.....	226,000 00	238,340 78		12,250 58
General expenses.....	126,095 00	119,696 34	6,398 66	
Roads.....	80,300 00	74,563 05	5,736 95	
Clearing land.....	1,000 00	360 55	639 45	
Grant not used.....				524 48
	433,485 20	432,960 72	12,775 06	12,775 06
<i>Manitoba, Saskatchewan, Alberta and Northwest Territories—</i>				
Implements.....	27,612 00	32,161 41		4,549 41
Seed.....	17,013 00	8,044 93	8,968 07	
Cattle.....	2,150 00	2,569 92		419 92
Destitute.....	233,450 00	207,777 97	25,672 03	
Medical.....	315,560 00	330,625 21		15,065 21
Triennial clothing.....	4,710 00	4,971 55		261 55
Surveys.....	13,000 00	10,963 74	2,036 26	
Sioux.....	22,145 00	27,719 24		5,574 24
Mills.....	1,194 00		1,194 00	
General expenses.....	404,423 00	422,336 51		17,913 51
Roads.....	5,000 00	3,857 22	1,142 78	
Assistance to graduates of Indian schools.....	15,000 00	10,051 45	4,948 55	
Balance unexpended.....				177 85
	1,061,257 00	1,061,079 15	43,961 69	43,961 69
<i>British Columbia—</i>				
Relief.....	70,000 00	102,792 82		32,792 82
Medical.....	182,480 00	198,651 61		16,171 61
Farming.....	9,950 00	9,708 89	241 11	
General expenses.....	182,170 00	172,472 43	9,697 57	
Surveys, etc.....	32,500 00	28,455 18	4,044 82	
Special grant.....	100,000 00		35,086 75	
Technical education.....		8,817 82		
Medical.....		10,521 87		
Agriculture.....		15,743 00		
Irrigation and roads.....		29,830 56		
Grant not used.....				105 82
	577,100 00	576,994 18	49,070 25	49,070 25
<i>Yukon—</i>				
Relief and medical.....	15,000 00	15,053 60		53 60
General expenses.....	4,000 00	3,854 70	145 30	
Grant not used.....				91 70
	19,000 00	18,908 30	145 30	145 30
<i>General Vote—</i>				
Surrender of land.....	50,000 00	540 00	49,460 00	
Relief.....	100,000 00	127,062 10		27,062 10
Tuberculosis.....	137,000 00	170,658 01		33,658 01
Printing and stationery.....	8,000 00	10,880 16		2,880 16
Surveys.....	6,000 00	1,342 09	4,657 91	
Assistance to A/C 310.....	3,000 00	3,000 00		
Smallpox and other diseases.....	25,000 00	14,017 91	10,982 09	
Registration fees.....	500 00	258 25	241 75	
Legal.....	7,000 00	8,505 53		1,505 53
Grant not used.....				235 95
	336,500 00	336,264 05	65,341 75	65,341 75
<i>Indian Education.....</i>	2,330,500 00	2,330,438 21	61 79	
<i>Miscellaneous Gratuities.....</i>		650 00		

INDIAN TRUST FUND

SHOWING transactions in connection with the Fund during the fiscal year ended
March 31, 1930

Service	Debit		Credit	
	\$	cts.	\$	cts.
Balance, March 31, 1929.....			13,629,403	74
Collections on land sales, timber and stone dues, rents, fines and fees.....			939,302	79
Interest for the year ending March 31, 1930.....			692,368	62
Legislative grants to supplement the funds.....			9,000	00
Outstanding cheques 1927-28.....			154	84
Transfer from Finance Department—				
Liquor fine—Yorkton, Sask.....			13	00
Expenditure during the year.....	1,333,721	95		
Transfers by warrant.....	80,000	00		
Balance, March 31, 1930.....	13,856,521	04		
	15,270,242	99	15,270,242	99

DOMINION OF CANADA

REPORT

OF THE

DEPARTMENT OF MINES

FOR THE

FISCAL YEAR ENDING MARCH 31, 1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

No. 2269

*To General His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander-in-Chief
of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency, in compliance with 6-7 Edward VII, chapter 29, section 18, the report of the work of the Department of Mines, for the fiscal year ending March 31, 1930.

W. A. GORDON,
Minister of Mines.



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REPORT
OF THE
DEPARTMENT OF MINES
FOR THE FISCAL YEAR ENDING MARCH 31, 1930

To the Honourable W. A. GORDON, K.C.,
Minister of Mines,
Ottawa.

SIR,—In accordance with the requirements of Parliament, I have the honour to submit the Annual Report of the Department of Mines for the year ending March 31, 1930.

Continued expansion in mining and metallurgical activities throughout the Dominion has been the keynote of the period covered by this report. This has been featured mainly in underground and surface development at the mines, in the erection of mills, smelters, and refineries, and in additions to existing structures and equipment, all of which point to increased stability and permanency of future operations. Also, the calendar year 1929 saw a new high record attained in Canadian mineral production, in value as well as in quantity of output.

The growth of the mining industry has again been reflected in increased departmental activities. Field and laboratory investigations have been extended to secure the greatest benefit for the industry from the facilities available, and the work of increasing existing facilities to render greater and urgently needed service has been continued. It is gratifying to note that both Dominion and provincial authorities are fully alive to the increasing industrial importance of mining and its associated arts, and that a larger amount of scientific and technical research is being devoted each year to their improvement.

The operations of the various branches of the department are reviewed below in detail by the heads of each branch and division. Present conditions in the industrial field are such that the greater part of the work being done is of urgent economic value, for which pressing demands exist. Nevertheless, other research investigations are carried on as time and circumstances permit, particularly when there is some likelihood of the application of scientific developments to Canadian conditions turning to the benefit of Canadian industry.

Increased activities in geological and topographical mapping and related work undertaken by the Geological Survey engaged the attention of fifty-two field parties working in widely separated parts of the Dominion. One party commenced the geographical and geological mapping of an area on the west coast of Hudson bay, immediately south of Rankin inlet, known to contain mineral deposits. Special investigations included the completion of the geological mapping of the Turner Valley oil and gas area of Alberta; a survey of the underground water supply for Regina, and the study of mapping of the surface deposits, including soils, of certain areas in southern Manitoba and Saskatchewan. Field and office work in anthropology and biology was continued by the National Museum of Canada.

The application of geophysics to the study of geological problems and, more particularly, to the investigation of ore deposits, is a matter of considerable interest to those engaged in the development of Canada's mineral resources. The Geological Survey this year continued the field study commenced in 1928 of the various methods and appliances now in commercial use for those purposes. Valuable, though highly technical, data have been derived from this investigation, the object of which is to ascertain the applicability and limitations of the various processes employed.

Research was continued by the Mines Branch into the more efficient treatment and utilization of the numerous metallic and non-metallic minerals of commercial importance. Investigations of modern methods of mining and milling and of the mineral technology of the more important ores have been made with a view to making this information available to the industries concerned. In the field of metallurgy the Mines Branch continued to contribute to the development and practical conservation of the Dominion's mineral resources through the improvement of methods for recovering more of the mineral content of ores, with attendant lessening of the cost of recovery. Special investigatory work on the utilization of Canadian iron ores was initiated and will be continued.

In the new Fuel Research Laboratories satisfactory progress has been made with the installation of equipment, and preliminary tests have begun. The work now being done includes tests on the burning of pulverized fuels, the examination of oil-shales, natural gas, and crude oils, the testing of coals, and the carbonization of coal with attendant recovery of by-products. Special studies have been made in the ceramics laboratories for the purpose of improving certain processes now in use in the clay-working industry, and for the elimination of unscientific and wasteful practices. Investigations have also been made on materials used in road construction. In addition to these technical studies, increased attention is being given to economic conditions and problems affecting the mineral industries generally.

The department wishes to acknowledge the co-operation of Dominion and provincial Government departments, of the development branches of the railway companies, banks, chambers of commerce, and of other Canadian organizations interested in the development of our natural resources. The general type of investigation undertaken by the department differs distinctly from those conducted by other organizations, and the danger of overlapping is almost entirely eliminated. Where similar work is carried on—as is the case with some of the universities, provincial governments, and the National Research Council—every effort is made to co-ordinate the work of the department with that of these various bodies. Close co-operation was also maintained with the Imperial Institute (London), the British Department of Scientific Research, the United States Bureau of Mines and Geological Survey, and with certain scientific and technical societies in the United States.

The results of all major investigations conducted by the department are made available to the public in the form of summary reports, special bulletins, maps, and memoirs. Much information of scientific, technical, and current interest related to the work of the department is also disseminated through the public and technical press, and by means of addresses. A selection of these papers and addresses is listed on pages 6 to 9. The winter series of Museum lectures, a standing feature of the educational work in Ottawa, was continued throughout the season of 1929-30. The official mining newsletter series prepared in the department for distribution from the High Commissioner's Office in London is now in its seventh year. Through this fortnightly service some four hundred selected newspapers, mining, banking, and investment houses in the United Kingdom and on the Continent, are informed of current develop-

ments in Canadian mining and metallurgical operations. The titles of the articles dispatched during the year will be found following the list of papers and addresses mentioned above.

The Deputy Minister, in addition to his administrative duties, served as chairman or member of the following official bodies: Council of the North West Territories; Dominion Fuel Board; Canadian Committee of the World Power Conference; Advisory Committee on Mining Regulations; National Research Council and several of its associate committees; Turner Valley Waste Gas Committee; Bituminous Sands Administrative Committee; and Advisory Committee on Minerals of the Imperial Institute. In February, 1930, the Deputy Minister sailed for South Africa to represent the Government of Canada at the Third (Triennial) Empire Mining and Metallurgical Congress.

Investigations into the utilization of the extensive deposits of bituminous sands of northern Alberta have been carried on for some years by the department and by the Research Council of Alberta. These investigations have been conducted along different lines, but the field in each case has been widening, and for this reason it was found desirable to secure the co-ordination of all research work on these potentially valuable resources. With this end in view the Honourable Charles Stewart, Minister of Mines, and the Honourable J. E. Brownlee, Premier of Alberta, arranged for the creation of a Bituminous Sands Administrative Committee, the membership of which is composed of the Deputy Minister of Mines, the President of the Research Council of Alberta, and the President of the National Research Council. All research on these resources is now controlled by the committee.

The Committee on the Conservation and Utilization of Waste Gas in Turner valley was created by the Dominion and Alberta Governments in the summer of 1929 to report upon the situation that had arisen in Turner Valley gas and oil field, Alberta. The inquiries instituted by the committee covered a wide field, and included studies of current practice in widely separated oil fields, industrial developments associated with gas fields, and current chemical processes in which are utilized gases similar to those being wasted in Turner valley. The committee recommended the formulation of new regulations to control all phases of the gas-producing industry, and the administration of the same by one body representing both Dominion and provincial authorities.

For the purpose of considering the means that might be taken to improve conditions in the coal mining industry in British Columbia, a conference was held in Victoria on October 1, 1929, at which the Deputy Minister of Mines and officers of the department met the Honourable W. A. McKenzie, officials of the British Columbia Department of Mines, and representatives of the coal mining industry of the province. The possibilities of the utilization of coal by destructive distillation at high and low temperatures, and the combustion of coal in pulverized form were discussed, and it was arranged that a sufficient supply of British Columbia coals should be made available in Ottawa for experimental work in the Fuel Research laboratories of the department. Investigative work was continued by the Mines Branch and the Geological Survey on the Cape Breton coal resources. The machinery set up for the administration of the Order in Council governing test movements of coals mined in eastern Canada has been made to apply to test movements of western Canadian coals. It is hoped that these various experiments will prove beneficial to the coal mining industry generally.

Finally revised figures of production for 1929 mark another step in the progress of Canada's mineral industries. For the fourth year in succession a new high record output was reached with a total production value estimated at nearly \$311,000,000, an advance of nearly \$36,000,000 or 13 per cent over the total output value for 1928. During the year important gains were made in

many different fields, new records being established in the production of copper, gold, nickel, and zinc among the metals, and of asbestos, petroleum, and salt among the non-metallics. In the more significant fields of mining exploration and development, upon which the output of the future to a great extent depends, very satisfactory progress was also made.

The high metal prices that have prevailed during recent years provided the impetus to intensive mining developments not only in Canada but in all mining countries. Reduced industrial activities and increasingly large stocks of metals on hand have resulted in a general slackening in the rate of production. The world depression that has seized commerce and industry since the beginning of 1930 will most likely be reflected this year in diminished activity in some branches of Canadian mining and in reduced output values for mining and metallurgical products generally, with that of gold excepted. The fall in the prices of copper, lead, and zinc, commodities to which the Dominion owes a large percentage of its increased mineral production in recent years, will be a principal contributory factor to any eventual decline, although it is probable that the 1930 production of these metals will exceed in quantity that of 1929.

These indications, considered in conjunction with the increase in mining, milling, smelting, and refining facilities already referred to, point to the increasing industrial stability of the Canadian mining industry and to its ability to operate and to advance in face of adverse market conditions. From its former status as a producer of raw mineral material the Dominion is gradually developing into a manufacturer of the finished mineral product, metallic and non-metallic. The present exceptional position of world industry veils to some extent the real situation which over a period of time becomes more than ever apparent. The world's need for minerals continues to increase with almost astonishing rapidity, and with the gradual exhaustion of Old World resources it is inevitable that the demand for Canada's mineral products will become greater, more varied, and more insistent.

Dominion Fuel Board

The Dominion Fuel Board held twelve meetings during the year and many subjects appeared on the agenda.

In its studies of the fuel situation, the board, in addition to continuing a systematic program of investigation that had been previously initiated, enlarged considerably the sources from which its information is drawn. Connexions with the coal-mining industry and the coal trade were extended and co-operation in the exchange of information between the board and coal marketing associations was advanced. Through such connexions the board obtained a great deal of data on the coal situation that are not otherwise available.

During the year, the second of the seasonal movements of Alberta coal to Ontario under the test freight rate of \$6.75 a ton, as authorized by Order in Council of March 16, 1928 (P.C. 439), was carried out. The board, in order to ascertain the results so far obtained in marketing the coal in Ontario, made a survey over representative areas and consuming centres of the province.

Administration of Order in Council of March 30, 1928 (P.C. 539), so far as it relates to inland rail shipments of water-borne coal from the Maritime Provinces, was an important part of the board's work. This work included inspection of applications from the coal companies for shipments under the provisions of the Order in Council, and payments made to the railways.

During the year eighty-two applications under Order in Council P.C. 539 were dealt with by the board. These applications referred to the movement of nearly 750,000 tons of coal.

In the summer of 1929 the secretary of the board visited the leading cities of Manitoba and Saskatchewan to study fuel costs to consumers, extent of coal markets, and competitive conditions as between Canadian and imported coals.

Administration of the Domestic Fuel Act (1927) during the past year included the final inspection by the board of the coking plant of the Nova Scotia Light and Power Company, Limited, at Halifax.

An application to participate under the benefits of the Domestic Fuel Act was received from the Quebec Power Company of Quebec. This application was accepted, preliminary inspection carried out, and an agreement entered into by the Minister with the applicant.

The Mineral Resources Division of the Department of Mines again conducted for the Fuel Board the annual survey of domestic fuel consumption in Ontario, Quebec, and Manitoba, and in the year under review extended the survey to cover the Maritime Provinces. The board continued its program of distributing printed cards and pamphlets showing proper methods of burning coke and other fuels displacing American anthracite.

A pamphlet on the subject of humidity in house heating was published by the board during the year. The public demand for this pamphlet quickly exhausted the first edition of 25,000 copies and a second edition of 50,000 copies was necessitated. Another pamphlet which the board had prepared during the year deals with the cost and convenience of house heating with various fuels, including fuel oil and city gas.

The board received many inquiries from representatives of Canadian and British interests who were investigating questions relating to coal markets or to the establishing of new sources of fuel supply. Inquiries from the public for information respecting fuels and the fuel situation were also dealt with. In response to requests from the newspapers and technical journals publicity articles on the fuel situation were prepared under the board's direction.

As in former years, generous co-operation was given to the board by the National Development Bureau and the Dominion Water Power and Reclamation Service, Department of the Interior, the Dominion Bureau of Statistics, Department of Trade and Commerce, the Mines Branch and the Geological Survey, Department of Mines, and by many of the coal interests throughout Canada.

Your obedient servant,

CHARLES CAMSELL,

Deputy Minister.

OTTAWA, ONT., April 7, 1930.

List of Papers and Addresses

NOTE. Lists of the papers prepared and addresses delivered during the year by members of the staffs of the Divisions of Anthropology, Biology, and Mineralogy are to be found in the Annual Report of the Director, National Museum of Canada.

General

- The Mining Industry in Canada, by Hon. Charles Stewart. Canadian Mining Journal, Fiftieth Anniversary Number, August, 1929.
- Mining Progress in Canada, by the Hon. Charles Stewart. Times Trade and Engineering Supplement, November 30, 1929.
- Canada's Mining Industries, by Hon. Charles Stewart. Beaver—Canada First, Toronto, June 20, 1929. Mail and Empire, Toronto, July 2, 1929.
- Canada's Mining Industries, by Hon. Charles Stewart. L'illustration Economique et Financière, Paris, January, 1930.
- Canada's Mining Industries, by Charles Camsell. Financial Times Fourth Canadian Resources Supplement, June 3, 1929.
- Canada's Mining Industries, by Charles Camsell. Financial Times Fifth Canadian Resources Supplement, November 18, 1929.
- Changing Aspects of Canada's Mining Industry, by Charles Camsell. Canadian Club, Vancouver, B.C., October 4, 1929.
- Changing Conditions in the Mining Industry of Canada, by Charles Camsell. Edmonton Chamber of Commerce, October, 1929.
- The Mining Industry in 1929, by L. L. Bolton. Montreal Gazette Financial and Industrial Review 1929, January, 1930.
- Use of the Airplane in Mining, by Charles Camsell. Institute of Politics, Williamstown, Mass., August 19, 1929.
- How Airplanes Are Used by the Modern Prospector, by Charles Camsell. School of Mines and Metallurgy, Rolla, Missouri, April 17, 1929.
- The Nation's Business—Aiding the Development of Canada's Mining Industry, by Charles Camsell. Radio broadcast CNRO, Ottawa, November 28, 1929.
- The Dominion Department of Mines, by Charles Camsell. Canadian Mining Journal, Fiftieth Anniversary Number, August, 1929.
- Functions of the Department of Mines, by L. L. Bolton. Lion's Club, Ottawa, October 29, 1929.
- The Department of Mines and Its Relation to the Mining Industry, by A. Buisson. Vancouver Branch, Canadian Institute of Mining and Metallurgy, July, 1929.
- The National Museum of Canada, by Charles Camsell. Radio broadcast CNRO, Ottawa, February 12, 1930.
- Field Work of the Geological Survey, 1929, by W. H. Collins. Canadian Mining Journal, June 7, 1929.
- Investigations of the Mines Branch, 1929, by John McLeish. Canadian Mining Journal, July 26, 1929.

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- Economic Geology of Canada, 1928, by P. J. Moran. Canada Year Book, Ottawa.
- Sketch of the History of Canadian Mining, by H. C. Cooke. Mining Magazine, August, 1929.
- Determination of Age-relations in Folded Rocks, by T. L. Tanton. Geological Magazine, vol. LXVII, 1930.
- Geology of Coal, by B. R. MacKay. Cornwall, March 25, 1930.
- Geological Guides in the Search for Ore Bodies, by J. F. Wright. Professional Institute Bulletin, Ottawa, March, 1930.
- Some Heavy Detrital Minerals in Canadian Sediments, by F. J. Fraser. Canadian Field Naturalist, September, 1929.
- Sedimentation in a Glacial Lake, by E. M. Kindle. Journal of Geology, January-February, 1930.
- Mining Industry in Yukon during 1929, by W. E. Cockfield. Canadian Mining Journal, February 14, 1930.
- Portland Canal Region—Activities during 1928, by V. L. Eardley-Wilmot. Canadian Mining Journal, June 14 and 21, 1929.
- Silver Producing Mines of British Columbia, by V. L. Eardley-Wilmot. Canadian Mining Journal, February 7, 1930.

- Big Bend District, B.C., by H. C. Gunning. Chamber of Commerce and Canadian Mining Institute, Vancouver, B.C., May 28, 1929.
- Quatsino-Nimipkish Area, B.C., by H. C. Gunning. Chamber of Commerce and Canadian Mining Institute, Vancouver, B.C., October 8, 1929.
- Nimipkish Lake Copper Deposits, by H. C. Gunning. Canadian Institute of Mining and Metallurgy, Vancouver, December, 1929.
- Mineral Possibilities of Northern Vancouver Island, by H. C. Gunning. Annual Meeting, Canadian Institute of Mining and Metallurgy, Toronto, March, 1930.
- Northern British Columbia, by F. A. Kerr. Financial News of Western Canada, September 20, 1929.
- Development and Mineral Resources of Northern British Columbia, by F. A. Kerr. Canadian Mining and Metallurgical Bulletin, July, 1929. British Columbia Miner, July, 1929.
- Recent Developments in Northern British Columbia, by F. A. Kerr, Vancouver Branch, Canadian Institute of Mining and Metallurgy, Vancouver Board of Trade, November 5, 1929.
- Significance of Recent Discoveries in Northwestern British Columbia, by F. A. Kerr. Canadian Mining Journal, March 7, 1930.
- Developments in the Stikine and Iskut Rivers Area, by F. A. Kerr. Wrangell Commercial Club, October 14, 1929.
- River Navigation and the Prospector, by F. A. Kerr. Canadian Mining Journal, February 7, 1930.
- Geological Story of Jasper National Park, by E. M. Kindle. National Parks of Canada, Department of the Interior, 1929.
- Stratigraphy and Structure of Bituminous Coalfields in Vicinity of Jasper Park, Alberta, by B. R. MacKay. Western Meeting, Canadian Institute of Mining and Metallurgy, October, 1929.
- Geology and Copper-zinc Deposits of Cold Lake Area, Manitoba, by J. F. Wright. Canadian Mining and Metallurgical Bulletin, April, 1929.
- Survey of Main Mineral Resources, by A. H. A. Robinson. Times Trade and Engineering Supplement, November 30, 1929.
- The Mineral Resources of Canada, by A. H. A. Robinson. Halifax Herald, January, 1930.
- Metal Mining in Canada, by A. H. A. Robinson. Engineering and Mining Journal, January 9, 1930. Engineering and Mining World, January, 1930.
- Base Metal Production in Canada, by A. H. A. Robinson. Annual financial number *Mail and Empire*, Toronto, January 3, 1930.
- Gold Resources of Canada, by H. C. Cooke and W. A. Johnston. Gold Resources of the World, Transactions XVth Geological Congress, 1929.
- The Wilberforce Radium Occurrence, by H. S. Spence. Annual Meeting, Canadian Institute of Mining and Metallurgy, Toronto, March, 1930.
- Zinc in Canada, by Charles Camsell. Zinc Institute, St. Louis, April 17, 1929.
- Non-metallic Minerals, by L. H. Cole. Boys' Camp, Golden Lake, August 3, 1929.
- Bituminous Sands of Northern Alberta, by S. C. Ellis. Chamber of Commerce, Edmonton, January 27, 1930; University of Alberta, February 11, 1930.
- Canada's Diatomite Deposits, by V. L. Eardley-Wilmot. Technical periodicals, Canada and United States.
- Feldspar Used for Glass Manufacture in Canada, by H. S. Spence. Mining and Metallurgy, February, 1930.
- Story of Gypsum in Canada, by L. H. Cole. Annual Convention, Canada Gypsum and Alabastine, Limited, Hamilton, January 8, 1930. Annual Meeting, Canadian Institute of Mining and Metallurgy, Toronto, March, 1930.
- Limestone in Industry, by M. F. Goudge. Annual Meeting, Canadian Institute of Mining and Metallurgy, Toronto, March, 1930.
- Mica, by H. S. Spence. Mineral Industry for 1928.
- Waste Natural Gas in Turner Valley, Alberta, by A. W. G. Wilson. Canadian Press, March 8, 1930.
- Phosphate Developments in British Columbia, by H. S. Spence. Mining and Metallurgy, February, 1930.
- Recent Developments of the Sodium Sulphate Deposits of Western Canada, by L. H. Cole. Mining and Metallurgy, February, 1930.

Fuels and Fuel Testing

- Status of Low Temperature Carbonization in Europe, by B. F. Haanel. Annual Convention of the Canadian Gas Association, Ottawa, June 13-14, 1929.
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- Comparison of Cost and Convenience of House Heating with Various Fuels, by E. S. Malloch. Pamphlet, Dominion Fuel Board.

- The Fuel Research Laboratories at Ottawa and the Scope of their Investigations, by B. F. Haanel. Canadian Mining and Metallurgical Bulletin, October, 1929.
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- Prospects of Nova Scotia's Coal Markets, by M. D. McCloskey. Halifax Herald, January, 1930.
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- Electric Heat and Heat Treating Alloy Steel, by T. W. Hardy. Heat Treating and Forging, January, 1930.
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- Application of Electro-thermal Methods to Iron and Steel Production in Canada, by T. W. Hardy. Sault Daily Star, Sault Ste. Marie, August, 1929.
- Concentration Tests on the Wilberforce Radium-bearing Ores, by R. K. Carnochan. Annual Meeting, Canadian Institute of Mining and Metallurgy, Toronto, March, 1930.

Ceramics and Road Materials

- Ceramic Research, by Howells Fréchette. Professional Institute Bulletin, Ottawa, September, 1929.
- Ceramic Research in the Mines Branch, by Howells Fréchette. Clay Products News and Ceramic Record, February, 1930.
- Research Work by the Ceramics Division, by Howells Fréchette. Clay Products News and Ceramic Record, July, 1929.
- Chemistry in Ceramics, by L. P. Collin. Society of Chemical Industry, Ottawa, December 19, 1929.
- Clayworking in Canada, by Howells Fréchette. Clay Products News and Ceramic Record, January, 1930.
- Canada Possesses Many Types of Clay, by Howells Fréchette. Natural Resources, Canada, March, 1930.
- New Method of Treating Clays to Overcome Drying Defects, by J. G. Phillips. Western Canada Contractor and Builder, June, 1929. Concrete and Quarry, February, 1930.
- Transverse Strength of Ball Clays, by L. P. Collin. American Ceramic Society, Toronto, February 18, 1930.
- Causes and Prevention of Scumming and Efflorescence, by J. W. Craig. Western Canada Brick and Clay Products Association, Moose Jaw, December 13, 1929.
- Refractories of Moulding Sands, by J. F. McMahon. American Foundrymen's Association, Chicago, April 9, 1929.
- An Improved Mercury Volumeter, by J. F. McMahon. American Ceramic Society, Toronto, February 18, 1930.
- Road Materials in the Maritimes, by Howells Fréchette. Canadian Engineer, October, 1929. Contract Record, October 30, 1929.
- Road Material Situation in the Maritime Provinces, by Howells Fréchette. Good Roads Association, Charlottetown, September 18, 1929.

Physiography and Topography

- Studies of the Physiography of the Canadian Shield: I. Mature Valleys of the Labrador Peninsula, by H. C. Cooke. Transactions, Royal Society of Canada, vol. 23, sec. IV.

Palæontology

- The Rôle of Fossils in Geology, by E. M. Kindle. Professional Institute Bulletin, Ottawa, January, 1930.
- Succession of Fossil Faunas in the Eastern Part of Jasper Park, by E. M. Kindle. American Journal of Science, vol. XVIII, N.S., 1929.
- Notes on Dinosaur Collecting in North America, by E. M. Kindle. Canadian Mining Journal, November 22, 1929.
- A Mississippian Fauna from Windsor, N.S., by W. A. Bell. Proceedings of the Academy of Natural Sciences of Philadelphia, vol. LXXXI, 1929.
- Trees One Hundred Million Years Old, by W. A. Bell. Forest and Outdoors, March, 1929.
- Preliminary Study of the Faunas of the Upper Triassic Schooler Creek Formation of Western Peace River, B.C., by F. H. McLearn. Royal Society of Canada, Ottawa, May 21, 1929.
- Canadian Dinosaurs, by C. M. Sternberg. Moose Jaw, September 9; Medicine Hat, September 10; Lethbridge, September 16; High River, September 17; Red Deer, September 18; Port Arthur, September 20; Fort William, September 20, 1929.
- New Records of Mastodons and Mammoths in Canada, by C. M. Sternberg. Canadian Field Naturalist, vol. XLIV, No. 3, 1930.

Mining Newsletter Series

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- Oil and Gas Developments in Western Canada, by G. S. Hume.
- Cadmium in Canada, by A. Buisson.
- Mineral Possibilities of Northern British Columbia, by F. A. Kerr.
- The Present and Future of Zinc in Canada, by A. H. A. Robinson.
- Field Work, Geological Survey, 1929, by W. Malcolm.
- The Oil Fields of Western Canada, by A. Buisson.
- Tin Discovery in British Columbia, by V. Dolmage.
- The Nickel Situation in Canada, by A. Buisson.
- Possibilities of the Peat Litter Industry, by A. Anrep.
- The Tin Situation in Canada, by A. Buisson.
- The Bismuth Situation in Canada, by A. Buisson.
- The Chibougamau District, Quebec, by C. Tolman.
- The Copper Situation in Canada, by A. Buisson.
- Increasing Output from Canadian Metal Mines, by W. Malcolm.
- Lead and Zinc Situation in Canada, by A. Buisson.
- Mining Developments in Yukon Territory, by W. E. Cockfield.
- Possible Canadian Production of Radium Ore, by H. S. Spence.
- The Rouyn District of Quebec, by H. C. Cooke.
- Prospecting Activities in Northern Saskatchewan, by J. R. Marshall.
- Silver Producing Mines of British Columbia, by V. L. Eardley-Wilmot.
- The Mineral Industry of Canada, by W. Malcolm.
- Great Slave Lake Has Interesting Geological Features, by C. H. Stockwell.
- Sulphur Independence for Canada, by W. B. Timm.
- Recent Developments in Northwestern British Columbia, by F. A. Kerr.
- Mineral Exploration West of Hudson Bay, by L. J. Weeks.
- Mining Note—Diatomite, by V. L. Eardley-Wilmot.
- Increased Lead-Zinc Output for British Columbia, by W. B. Timm.
- Mining Developments on Northern Vancouver Island, by H. C. Gunning.
- Mining Note—Mica, by H. S. Spence.
- Growing Interest in Canada's Feldspar Resources, by H. S. Spence.

GEOLOGICAL SURVEY

W. H. Collins, Director

CHANGES IN STAFF

There were two resignations during the fiscal year, both from the Geological Division. On October 4, 1929, Victor Dolmage resigned to enter the commercial field as a consulting geologist. Since his appointment to the Survey staff on November 20, 1917, Dr. Dolmage had worked in British Columbia and had acquired a valuable knowledge of the geology and mineral resources of the Cordilleran region. He had also been in charge of the branch office of the Survey at Vancouver since May 12, 1923. J. B. Mawdsley resigned on November 15, 1929, to take charge of the Department of Geology in the University of Saskatchewan. Dr. Mawdsley had been on the Survey staff for seven years, during which he did exceptionally fine geological work in the Precambrian region of western Quebec, especially in the Rouyn mineral field. By these resignations the Survey has lost two effective and experienced geologists.

Three assistant geologists were appointed: G. W. H. Norman on June 13, 1929, H. S. Bostock on December 20, 1929, and R. B. McConnell on March 27, 1930.

The Draughting Division is composed largely of experienced map draughtsmen from Great Britain, who were trained in government and commercial map-publishing institutions there, suitably trained men being difficult to obtain in Canada. Of late years this source of supply has failed, and the Survey, with the concurrence of the Civil Service Commission, has undertaken to train recruits for itself. This plan was put in effect on September 20, 1927, by the employment of two student map draughtsmen. At the end of the present fiscal year four of these apprentices are in training, and so far the plan has exceeded expectations.

FIELD WORK

The following table of the number of field parties sent out each year since 1920 affords a rough idea of the increasing amount of work done:

Year	Number of parties	Year	Number of parties
1920.....	39	1925.....	54
1921.....	43	1926.....	53
1922.....	39	1927.....	50
1923.....	40	1928.....	53
1924.....	47	1929.....	56

The corresponding cost of the Geological Survey is shown in a table in the Annual Report for 1927-28.

The work done by the fifty-six parties sent out in 1929 is explained briefly in succeeding sections of this report. One new feature of this program is that two of the parties mentioned were engaged upon geophysical investigations. The application of physics to the study of geological problems in Canada is, in some respects, not new or novel, for the dip-needle and the magnetometer have been used here for many years, and quite successfully, in locating deposits of iron ore and other magnetic substances. Within the last twenty years, however, a great deal of attention has been given in other countries to the investi-

gation of ore deposits and other geological features by means of their physical behaviour—electrical, gravitational, radioactive, and mechanical (transmission of vibrations). Many ingenious methods have been devised.

These new geophysical methods have been introduced into Canada within the last ten years. They have not yet been used extensively, and in perhaps a majority of trials they have been disappointing. This condition, however, is probably transient. Geophysical methods appear to be going through a difficult but normal transition from an experimental stage to that of a recognized applied science. The methods and apparatus have been devised by physicists and, necessarily as yet, used by physicists because no one else understands them. Physicists, accustomed to the simple and controllable conditions obtainable in the laboratory, have not understood well, and have perhaps underestimated, the complex geological conditions encountered in field trials. Methods have not always been adapted to the particular geological conditions, and wrong interpretations have been made. A good deal of secrecy and ignorance attends the new science in the present stage. For their financial advantage the companies engaged in geophysical investigations protect their inventions by patents and secrecy. Their clients are correspondingly unable to judge for themselves regarding the merits of geophysical work and are prone to extremes of opinion. It is to be remembered, too, that this branch of geophysics is a very young science, that most of the apparatus and methods are still imperfect, and that standards for practice and equipment have not yet been established. But these disadvantages will disappear if applied geophysics continue to prove as useful as present experience leads one to expect.

It appears quite clear that geophysical investigations should be directed and interpreted by persons with an adequate knowledge of the geological sciences. Almost every field investigation will present its own peculiar geological conditions that will determine which geophysical method or methods are most suitable and how they should be applied, and the geophysical data obtained will be of little value until they are translated into geological terms. It is probable that much of the geophysical apparatus will ultimately become so perfected and simplified that it can be used by the geologist or geologically trained engineer without the assistance of the physicist. In the past the physicist has provided the geologist with more than one new appliance and new technique, such as the polarizing microscope, and there seems no reason whatever to doubt that, in the same way, geophysical methods and apparatus will ultimately become another valuable adjunct for the geologist, and geophysics become as much a part of the curriculum for geologists and engineers as is petrography. Application of other principles and invention and improvement of apparatus will, of course, remain functions of the physicist.

Viewing geophysical work from this standpoint, the Geological Survey commenced the study of the new methods—electrical, gravitational, and vibrational—in 1928. Professor Lachlan Gilchrist, of the Department of Physics, University of Toronto, and Dr. J. B. Mawdsley undertook in collaboration with a number of geophysical companies to ascertain the capabilities and limitations of the various electrical principles then being employed in Canada. This investigation was undertaken for the immediate purpose of affording mining men some impartial information regarding where geophysical methods might be used and what results might be expected. A report upon it is now in press. Study was also commenced upon gravimetric (torsion balance) methods in co-operation with the Dominion Observatory, Department of the Interior. Mr. A. H. Miller, of the Observatory staff, was sent to Europe during the summer to study the apparatus and methods in use there, preparatory to actual experimentation with these methods in Canada. In this connexion it is desired to express the cordial thanks of the Geological Survey and of the Dominion Observatory to Sir John Flett, Director of the Geological Survey of Great Britain; to Dr. Paul

Krusch, Director of the Geological Survey of Germany; the directors of the observatories in both these countries and many others in Europe; also to the officials of the geophysical prospecting companies above named for assistance rendered.

In 1929 the investigation of electrical and magnetic methods was continued by a Geological Survey party comprising Professor Gilchrist, Dr. Mawdsley, Dr. A. S. Eve, of the Department of Physics, McGill University, and his colleague, Dr. A. D. Keys, in collaboration with a party from the United States Bureau of Mines, under Dr. W. T. Lee. Professor Eve and Dr. Keys had been engaged in this work for the United States Bureau of Mines for two seasons and undertook work for the Survey with the advantage of this previous experience. The combined party tested a variety of electrical methods at the Mammoth cave, Kentucky; at the Falconbridge mine, Sudbury; and again at the Abana mine, Rouyn district.

Mr. Miller commenced to apply the information obtained in Europe the previous season by undertaking torsion-balance and magnetometer surveys of known examples of the chief types of geological structures to which the gravimetric method is applicable. These types of structures are faults, bodies of abnormal density, and folds. The Gloucester fault near Ottawa was surveyed.

Work will be continued in 1930.

OFFICE WORK

Under this head it is desired to refer specially to the output of geological and topographical maps during the fiscal year. A list of these maps is given in the section relating to the Draughting Division. About twice as many were published as usual. Credit for this is due, within the Survey, to Mr. Alexander Dickison and Mr. C. O. Senecal, of the Draughting Division, Mr. W. H. Boyd, of the Topographical Division, Mr. G. A. Young, of the Geological Division, and Mr. G. G. Clarke, of the Photographic Division, and to the members of those divisions. It is also due in an important measure to the Surveys Branch of the Department of National Defence and to the Topographical Surveys Branch of the Department of the Interior for the use of base maps made by those organizations, and to the Department of Public Printing and Stationery for expeditious publication work of excellent quality.

GEOLOGICAL DIVISION

Yukon

G. A. Young, Chief Geologist, reports as follows:

W. E. Cockfield, assisted by E. J. Lees, commenced the topographical and geological mapping of Laberge quadrangle (latitudes 61° to 62° , longitudes 134° to 136°), southern Yukon. Silver-lead, placer gold, and, possibly, copper-bearing deposits, occur within the map-area. The work when completed will result in the publication of a geological and topographical map, on a scale of 4 miles to 1 inch.

During the field season Mr. Cockfield visited several of the active mining camps of Yukon and will report upon them in Summary Report 1929, Part A. An effort will be made to continue annually this review of mineral developments on Yukon.

British Columbia

F. A. Kerr completed the topographical and geological survey, begun in 1926, of the more accessible territory bordering Stikine and Iskut rivers and lying mainly within three quadrangles contained by latitudes $56^{\circ} 30'$ and $58^{\circ} 00'$,

and longitudes 131° and 132° . The region is traversed by the east margin of the Coast Range batholith and, therefore, is of prospective importance as a mineral-bearing district. A preliminary account of the work accomplished in 1929 will appear in Summary Report 1929, Part A. The three map-sheets on a scale of 2 miles to 1 inch are being prepared for publication. Mr. Kerr also visited the section on Taku river adjacent to the International Boundary where important mineral discoveries have recently been made. A report on this section will appear in Summary Report 1929, Part A.

George Hanson continued the study of the geology and mineral resources of Alice Arm mineral area. Various types of mineral deposits bearing silver, silver lead, zinc, copper, and molybdenite are present and are the subject of renewed interest. The geological work being prosecuted is mainly confined to two map-areas bounded by latitudes $55^{\circ} 30'$ and $55^{\circ} 45'$ and longitudes 129° and 130° , of which geological and topographical maps on a scale of 1 mile to 1 inch will be issued when field work is completed.

A. H. Lang, under the direction of George Hanson, geologically and topographically mapped an area of about 100 square miles in the vicinity of Owen lake. The resulting map and a report dealing with the geology and mineral resources of the area will appear in Summary Report 1929, Part A.

H. C. Gunning geologically explored an area of about 700 square miles in northern Vancouver island, extending west from Nimpkish lake to Quatsino sound. Copper-bearing and lead-zinc deposits of merit occur within the area. One large copper deposit is now approaching the production stage. A geological map, on a scale of 2 miles to 1 inch, and a report on the geology and mineral resources will appear in Summary Report 1929, Part A.

C. E. Cairnes commenced the study and mapping of the geology of the Trinity quadrangle bounded by latitudes $50^{\circ} 15'$ and $50^{\circ} 30'$ and longitudes $118^{\circ} 30'$ and $119^{\circ} 00'$. This area was chosen as being representative of the geologically, comparatively unknown country stretching westward from Upper Arrow lake towards Kamloops. Mr. Cairnes also examined in detail the gold occurrences within a belt of country crossing Coquihalla river about 10 miles northwest of Hope. Much interest has been displayed in these gold-bearing deposits and a full report concerning them will appear in Summary Report 1929, Part A.

H. S. Bostock continued geological mapping and study of three quadrangles in Hedley district lying between latitudes $49^{\circ} 00'$ and $49^{\circ} 30'$ and longitudes $119^{\circ} 30'$ and $120^{\circ} 30'$. The work when completed will be issued in the form of a report accompanied by three geological maps on a scale of 1 mile to 1 inch. The results of a detailed study of the Nickel Plate mine at Hedley will appear in Summary Report 1929, Part A.

J. F. Walker continued geological mapping and investigation of the mineral resources of the Salmo quadrangle (latitudes $49^{\circ} 00'$ to $49^{\circ} 15'$, and longitudes $117^{\circ} 00'$ to $117^{\circ} 30'$). A preliminary report on a number of the gold-bearing properties within this map-area will appear in Summary Report 1929, Part A.

Alberta

B. R. MacKay investigated and mapped, geologically and in some cases also topographically, various coal-bearing areas in the vicinity of and northwest of Brûlé. This work included examinations of a considerable area around Pocatontas, of an area in the Prairie Creek section, of other areas in Hay-River basin, and a reconnaissance of Smoky River coal area. The results obtained will be incorporated in a memoir treating of the coal fields of the district extending northwesterly from Brazeau to Hay rivers.

J. F. Caley, under the direction of C. S. Evans, made a geological reconnaissance of a part of Wapiti River basin. An account of the results obtained will appear in Summary Report 1929, Part A.

G. S. Hume completed the geological mapping of Turner Valley quadrangle (latitudes $50^{\circ} 30'$ to $50^{\circ} 45'$, longitudes $114^{\circ} 00'$ to $114^{\circ} 30'$), of the east half of Bragg Creek quadrangle (latitudes $50^{\circ} 45'$ to $51^{\circ} 00'$, longitudes $114^{\circ} 30'$ to $115^{\circ} 00'$), and of two townships bordering Turner Valley map-area on the north. The field work disclosed a structural feature that extends from Highwood to Elbow rivers, and is of great importance to those engaging in the search for oil and gas. An account of this structure and other important features of the general district will appear in Summary Report 1929, Part B. To meet the immediate needs of the many who are interested in Turner Valley district, arrangements are being completed that will permit the supplying, at a moderate charge, of hand-coloured geological maps, on a scale of 1 mile to 1 inch, of the various areas mentioned above.

Saskatchewan

F. H. McLearn continued the study and mapping of the geology of the southern part of an area embracing most of southern Saskatchewan (latitudes 49° to 52° , longitudes 102° to 109°). An account of some of the results obtained will appear in Summary Report 1929, Part B.

P. S. Warren continued the study and mapping of the geology of a large area in southern Saskatchewan south of latitude 52° . When this work and that being conducted by Mr. McLearn in the district to the south, are completed the results will be incorporated in a map (Regina sheet) on a scale of 8 miles to 1 inch, and a report dealing with southern Saskatchewan. A report by Mr. Warren, giving an account of the area investigated by him, will appear in Summary Report 1929, Part B.

W. A. Johnston and R. T. D. Wickenden commenced the investigation of the surface geology, including the soils, of southern Saskatchewan within the limits of the proposed Regina map-sheet (latitudes 49° to 52° , longitudes 102° to 109°).

H. E. Simpson and W. A. Johnston investigated the underground water supply for Regina. The work resulted in the locating of what seems likely to prove an adequate additional source of water for the city. A report by Mr. Simpson on the results obtained will appear in Summary Report 1929, Part B.

J. R. Marshall with J. Satterly commenced the geological study of, and mapping of, Pelican Narrows quadrangle (latitudes 55° to 56° , longitudes 102° to 104°). This area lies within the area of Precambrian rocks known as the Canadian Shield, to which so much attention is being given by the mining public. The work, when completed, will result in the publication of a geological map on a scale of 4 miles to 1 inch.

S. H. Ross made a geographical and geological survey of a limited area in the vicinity of Rottenstone lake, northern Saskatchewan, where mineral deposits of prospective importance have been discovered.

Manitoba

W. A. Johnston completed the study and mapping of the surface deposits—including soils—of the greater part of southern Manitoba contained within the limits of the Winnipeg map-sheet (latitudes 49° to 52° , longitudes 95° to 102°). A map, called the Winnipeg sheet, on a scale of 8 miles to 1 inch, covering this district and presenting the results of field work, is in course of preparation.

S. R. Kirk continued the study and mapping of the geology of southern Manitoba and adjacent parts of Saskatchewan lying within the limits of the Winnipeg map-sheet. A report on the results of the investigation of the Cretaceous strata will appear in Summary Report 1929, Part B.

J. F. Wright studied and mapped in detail a part of the gold-bearing Beresford-Rice Lakes district. He also geologically mapped extensions of the areas previously mapped in Oiseau River district and visited various localities in southeastern Manitoba where tin-bearing deposits have been found. An account of some of the more important gold-bearing deposits and of the tin-bearing occurrences will appear in Summary Report 1929, Part B.

E. Antevs studied the glacial and other surface deposits in areas bordering the Hudson Bay railway.

North West Territories

C. H. Stockwell geologically mapped for publication on a scale of 4 miles to 1 inch, part of a quadrangle (latitudes 62° to 63° , longitudes 110° to 112°) embracing an eastern part of Great Slave lake. Lead-zinc deposits occur in the region and the study of the general geology of the area promises to yield results of much value. A preliminary account of the results obtained will appear in Summary Report 1929, Part B.

L. J. Weeks commenced the geographical and geological mapping, for publication on a scale of 4 miles to 1 inch, of a quadrangle (latitudes 62° to 63° , longitudes 92° to 94°) extending southward from Rankin inlet on the west coast of Hudson bay. A brief report on general conditions within the field will be included in Summary Report 1929, Part B. Mineral deposits have been found, and when the territory becomes more easily accessible it will probably be actively prospected.

Ontario

T. L. Tanton continued the geological and geographical survey of the Shebandowan quadrangle (latitudes $48^{\circ} 30'$ to $48^{\circ} 45'$, longitudes $90^{\circ} 00'$ to $90^{\circ} 30'$). Various types of mineral deposits occur within the map-area and it was expected that the study of the geology of the district would yield results of importance.

H. M. Bannerman continued the geological and geographical survey of the Rush Lake quadrangle (latitudes $47^{\circ} 45'$ to $48^{\circ} 00'$, longitudes $82^{\circ} 00'$ to $82^{\circ} 30'$), in Woman River basin. He also examined various lead-zinc, copper, and copper-gold deposits in Cunningham, Chester, Keith, and Heenan townships. A report on the mineral deposits examined in these townships and within Rush Lake quadrangle will appear in Summary Report 1929, Part C.

T. T. Quirke continued the geological study and mapping of a quadrangle (latitudes $45^{\circ} 15'$ to $45^{\circ} 30'$, longitudes $79^{\circ} 30'$ to $80^{\circ} 00'$) east of Parry Sound. The geological investigations being carried out are yielding results of much scientific interest, as well as practical value.

M. E. Wilson completed the geological mapping of the Westport quadrangle (latitudes $44^{\circ} 30'$ to $44^{\circ} 45'$, longitudes $76^{\circ} 00'$ to $76^{\circ} 30'$), and commenced the geological study and mapping of the Perth quadrangle (latitudes $44^{\circ} 45'$ to $45^{\circ} 00'$, longitudes $76^{\circ} 00'$ to $76^{\circ} 30'$). The publication scale of the map-sheets is to be 1 mile to 1 inch. The systematic mapping of the geology of this part of the province permits a better valuation of the various types of metallic and non-metallic mineral deposits so characteristic of the region.

Miss A. E. Wilson revised and completed the geological mapping of the southern part of the Thurso quadrangle (latitudes $45^{\circ} 30'$ to $45^{\circ} 45'$, longitudes $75^{\circ} 00'$ to $75^{\circ} 30'$) and completed the geological mapping of the Cornwall

quadrangle (latitudes $45^{\circ} 00'$ to $45^{\circ} 15'$, longitudes $74^{\circ} 30'$ to $75^{\circ} 00'$). The work in the two quadrangles has afforded new information regarding the structure and stratigraphy of the Ordovician strata.

D. C. Maddox and Miss A. E. Wilson commenced the revision of the geology of the Ottawa (city) quadrangle. This work, it is proposed, is to be carried to completion incidentally to regular field work elsewhere.

Quebec

H. C. Cooke revised the geological mapping of the Kinojevis and Clericy quadrangles (latitudes $48^{\circ} 00'$ to $48^{\circ} 30'$, longitudes $78^{\circ} 30'$ to $79^{\circ} 00'$) and part of the Opasatika quadrangle (latitudes $48^{\circ} 00'$ to $48^{\circ} 15'$, longitudes $79^{\circ} 00'$ to $79^{\circ} 30'$). The three map-sheets, on a scale of 1 mile to 1 inch, represent an important part of Rouyn mineral district, western Quebec.

R. Thomson geographically and geologically mapped the northeastern part of the Thurso quadrangle (latitudes $45^{\circ} 30'$ to $45^{\circ} 45'$, longitudes $75^{\circ} 00'$ to $75^{\circ} 30'$). This completes the field work necessary to permit publication of a geological map-sheet, on a scale of 1 mile to 1 inch, of this mineral-bearing district.

H. W. McGerrigle, under supervision of T. H. Clark, completed the geological study and mapping of the Lacolle quadrangle (latitudes $45^{\circ} 00'$ to $45^{\circ} 15'$, longitudes $73^{\circ} 00'$ to $73^{\circ} 30'$). Publication scale of the map-sheet is to be 1 mile to 1 inch. This work is one item of the detailed investigation of the geology of southeastern Quebec.

C. Tolman explored geographically and geologically a district southwest of Chibougamau lake, chiefly along Obatogamau river between latitudes $49^{\circ} 30'$ to $50^{\circ} 00'$, and longitudes $74^{\circ} 00'$ to $75^{\circ} 30'$. The district is part of an extensive region whose mineral-bearing possibilities are of public interest. An account of geological results obtained will appear in Summary Report 1929, Part C.

G. W. Crickmay, under the supervision of F. J. Alcock, commenced the study and mapping of the geology of that part of Matapedia River valley and tributary areas lying within two quadrangles bounded by longitudes $67^{\circ} 00'$ and $67^{\circ} 30'$, and latitudes $48^{\circ} 00'$ and $48^{\circ} 30'$.

C. H. Kindle, under the supervision and with the assistance of E. M. Kindle, continued the geographical and geological mapping of the more accessible territory bordering Chaleur bay from the vicinity of Port Daniel east to Percé. The field work when completed will permit the issuing of a series of standard map-sheets on a scale of 1 mile to 1 inch.

New Brunswick

F. J. Alcock commenced and nearly completed the geographical and geological mapping of the territory bordering Chaleur bay from southeast of Campbellton to east of Bathurst. The districts geologically surveyed lie within the limits of three standard map-sheets which it is proposed to publish on a scale of 1 mile to 1 inch. Mr. Alcock also examined a number of mineral occurrences elsewhere within the province.

Nova Scotia

E. R. Faribault continued the geological mapping of the Digby quadrangle (latitudes $44^{\circ} 30'$ to $44^{\circ} 45'$, longitudes $65^{\circ} 30'$ to $66^{\circ} 00'$) and commenced similar work in the Belliveau quadrangle. He also visited various mineral occurrences in western Nova Scotia.

W. A. Bell commenced the revision of the geological mapping, for publication on a scale of 1 mile to 1 inch, of the Sydney quadrangle (latitudes $46^{\circ} 00'$

to $46^{\circ} 15'$, longitudes $60^{\circ} 00'$ to $60^{\circ} 30'$) which includes a considerable part of the Sydney coal field. He also spent a short time in the Pictou coal field collecting supplementary information needed to complete the investigation of this field.

G. W. H. Norman completed the geographical and geological mapping of the Ainslie quadrangle (latitudes $46^{\circ} 00'$ to $46^{\circ} 15'$, longitudes $61^{\circ} 00'$ to $61^{\circ} 30'$) for publication on a scale of 1 mile to 1 inch. He also made a detailed survey of the Mabou coal field which lies within the quadrangle.

General

A. S. Eve, L. Gilchrist, and D. A. Keys, physicists, and J. B. Mawdsley, geologist, continued an investigation of electrical geophysical methods of prospecting. This work was undertaken in 1928 by Mr. Gilchrist and Mr. Mawdsley for the purpose of comparing at some well-known ore deposit the capabilities and limitations of the various electrical principles in commercial use, much uncertainty and difference of opinion about these methods having arisen among mining men. The Abana mine, in Rouyn district, was selected, and four geophysical companies co-operated, namely the Schlumberger, Radiore, Swedish-American, and Alderson-MacKay. This comparison test was concluded in 1929 and the balance of the season was devoted to further independent investigation of the possibilities of electrical methods. Professor Eve and Mr. Keys had been engaged for two years previously by the United States Bureau of Mines on work of the same kind and brought valuable information and experience to the investigations in Canada. The field work of 1929 was also done in collaboration with a party from the United States Bureau of Mines under Dr. W. T. Lee. Attention was devoted principally to a study of the penetration underground of radio waves, a principle upon which one of the geophysical methods of searching for ore deposits is based. This was carried out at the Mammoth cave, in Kentucky, where uniquely favourable conditions for experimentation exist. The double party then moved to Sudbury, where various methods were tested on Falconbridge metal-copper ore deposit, which is also specially suited for the purpose.

A. H. Miller commenced an investigation of gravimetric and magnetic methods. He had, during the preceding summer, visited Europe to become acquainted with what is being done there with these methods, especially in England and Germany. The next step was to apply the methods to known examples of the main types of geological features to which gravimetric methods are applicable in order to obtain some measure of the effects of such features before undertaking an investigation of unknown features. Work was commenced upon the Gloucester fault, near Ottawa.

TOPOGRAPHICAL DIVISION

W. H. Boyd, Chief Topographical Engineer, reports:

British Columbia

R. Bartlett completed topographical mapping of an area comprising about 200 square miles in the vicinity of Alice Arm, constituting part of two 1-mile quadrangles bounded by latitudes $55^{\circ} 15'$ to $55^{\circ} 45'$ and longitudes 129° to $129^{\circ} 30'$. Map scale, 1 inch to 1 mile. Contour interval 100 feet.

S. M. Steeves continued topographical mapping of the Salmo sheet, latitudes $49^{\circ} 00'$ to $49^{\circ} 15'$, longitudes $117^{\circ} 00'$ to $117^{\circ} 30'$. Map scale, 1 inch to 1 mile. Contour interval 100 feet. Owing to bad smoke conditions from forest fires, it was not possible to complete the field work necessary for the whole sheet; about 122 square miles remain to be done.

J. V. Butterworth commenced the topographical mapping of the east half of the Cranbrook sheet, latitudes $49^{\circ} 30'$ to $49^{\circ} 45'$, longitudes $115^{\circ} 30'$ to $116^{\circ} 00'$. Map scale, 1 inch to 1 mile. Contour interval 100 feet. The west half of this sheet was completed in 1925 by A. C. T. Sheppard. More field work is required to complete the east half.

Alberta

D. A. Nichols completed the topographical mapping of the east half of the Wildcat Hills sheet, latitudes $51^{\circ} 15'$ to $51^{\circ} 30'$, longitudes $114^{\circ} 30'$ to $115^{\circ} 00'$. Map scale, 1 inch to 1 mile. Contour interval 25 feet.

W. H. Miller commenced the topographical mapping of the Brûlé sheet, latitudes $53^{\circ} 15'$ to $53^{\circ} 30'$, longitudes $117^{\circ} 30'$ to $118^{\circ} 00'$. Map scale, 1 inch to 1 mile. Contour interval 100 feet. About one-half of the sheet remains to be done.

R. C. McDonald completed the triangulation control for the Brûlé sheet and commenced the topographical mapping of the Nordegg sheet, latitudes $52^{\circ} 15'$ to $52^{\circ} 30'$, longitudes $116^{\circ} 00'$ to $116^{\circ} 30'$. Map scale, 1 inch to 1 mile. Contour interval 100 feet.

A. C. T. Sheppard visited the parties, with the exception of the party under D. A. Nichols, working in British Columbia and Alberta, for the purposes of inspection and advising on any matters relating to field work.

Ontario

A. G. Haultain completed the control surveys for the Chelmsford sheet, latitudes $46^{\circ} 30'$ to $46^{\circ} 45'$, longitudes $81^{\circ} 00'$ to $81^{\circ} 30'$. Map scale, 1 inch to 1 mile. Details of drainage, etc., in this area will be filled in from vertical aerial photographs.

Quebec

A. C. Tuttle carried on geographical surveys in the Chibougamau sheet, latitudes $49^{\circ} 45'$ to $50^{\circ} 00'$, longitudes $74^{\circ} 00'$ to $74^{\circ} 30'$.

H. N. Spence completed some additional control surveys in the Opasatika sheet, latitudes $48^{\circ} 00'$ to $48^{\circ} 15'$, longitudes $79^{\circ} 00'$ to $79^{\circ} 30'$.

New Brunswick

J. W. Spence completed the topographical mapping of the Moncton sheet, latitudes $46^{\circ} 00'$ to $46^{\circ} 15'$, longitudes $64^{\circ} 30'$ to $65^{\circ} 00'$. Map scale, 1 inch to 1 mile. Contour interval 50 feet.

H. N. Spence completed certain control surveys in the Bathurst sheet, latitudes $47^{\circ} 30'$ to $47^{\circ} 45'$, longitudes $65^{\circ} 30'$ to $66^{\circ} 00'$; in the Belledune sheet, latitudes $47^{\circ} 45'$ to $48^{\circ} 00'$, longitudes $65^{\circ} 30'$ to $66^{\circ} 00'$; and in the Charlo sheet, latitudes $47^{\circ} 45'$ to $48^{\circ} 00'$, longitudes $66^{\circ} 00'$ to $66^{\circ} 30'$.

Nova Scotia

J. A. Macdonald completed the control surveys for the Church Point sheet, latitudes $44^{\circ} 15'$ to $44^{\circ} 30'$, longitudes $66^{\circ} 00'$ to $66^{\circ} 30'$; and for the Port Mouton sheet, latitudes $43^{\circ} 45'$ to $44^{\circ} 00'$, longitudes $64^{\circ} 30'$ to $65^{\circ} 00'$. Details of drainage, etc., on these sheets will be filled in from vertical aerial photographs.

K. G. Chipman visited the parties working in New Brunswick and Nova Scotia for the purposes of inspection and advising on any matters relating to field work.

OFFICE WORK

The control and computing section, under S. C. McLean, which was organized for the purpose of computing and adjusting the triangulation and

traverse control carried out by the various field parties, has accomplished a great amount of work, and materially assisted in speeding up the whole work of the division by relieving the topographical engineers of a considerable amount of routine work, thereby enabling these engineers to put more time on the actual work of mapping.

During the year this section carried out and completed the duplicate computations, checking, and adjusting of one net of secondary triangulation, three nets of tertiary triangulation, and 1,000 miles of traverse. In addition to this, considerable back work was completed, and the correlation, adjustment, and filing of a mass of information for general use was commenced.

D. A. Nichols continued his work in physiography and in assembling the nucleus of a geographical section for the National Museum.

MINERALOGICAL DIVISION

Eugene Poitevin, Chief of the Division, reports:

One of the prime functions of the Division of Mineralogy is to investigate the physical and chemical properties, mode of occurrence, genesis, associations, and economic applications of Canadian minerals. It is the duty of the mineralogists to examine and report upon the nature and commercial value of ores, minerals, and rocks submitted by prospectors, property owners, and the public generally.

FIELD WORK

At various times during the year, and especially in the summer, Mr. Poitevin has been carrying on some detailed geological and mineralogical work at the asbestos mines in the vicinity of Thetford, Que.

R. J. C. Fabry, rock analyst of the division, towards the end of August spent ten days in the field under the direction of Mr. M. E. Wilson. The object of this field work was to have him become acquainted with the field methods of the Geological Survey.

A. T. McKinnon left Ottawa on June 3 to return on August 23. During that time he visited numerous mineral localities in Ontario, Quebec, New Brunswick, and Nova Scotia, collecting minerals for museum and educational purposes.

LABORATORY WORK

More than three thousand rock and mineral specimens were received from various outside sources. These were identified and reported on as to their possible commercial value. During the fiscal year just ended more than twenty-five hundred reports were issued by Eugene Poitevin and H. V. Ellsworth. These do not include numerous verbal reports given to the visiting public.

Eugene Poitevin and R. J. C. Fabry have completed their study of the lithium minerals from the pegmatites of the Silver Leaf property in southern Manitoba.

Eugene Poitevin has, in addition, completed the study of a new mineral, robertsonite, from British Columbia, and has also completed the revised study of the ptilolite group of minerals.

H. V. Ellsworth assisted in the determination of minerals sent in for identification and report as to commercial possibilities. He, also, spent considerable time in consultations and personal interviews with prospectors and others. A good deal of work was involved in connexion with the preparation for publication of his report on rare element minerals. During the absence of Mr. Poitevin on field duty he took charge of the work of the Division of Mineralogy. In addition, during the year he made a study of a deposit of cobalt nickel minerals occurring on Calumet island, of cenosite, a very rare yttrium mineral, and of a Canadian

occurrence of gadolinite. He also co-operated with the Ore Dressing Division, Mines Branch, in the concentration of a large shipment of uranium ores by the Ontario Radium Corporation and made about one hundred and thirty electroscopic determinations of the uranium content of the ores and concentration products. In addition he made many electroscopic and other special tests for rare elements in minerals sent in by prospectors.

R. J. C. Fabry has completed chemical analyses of the following minerals and rocks:

Thomsonite from Johnston asbestos mine, Thetford, Coleraine township, Megantic county, Que.

Stannite, Snowflake mine, Albert Canyon, B.C.

Robertsonite, Penticton, B.C.

Aphrodite, Jacob asbestos mine, Thetford Mines, Que.

Pink diopside, Montreal chrome pit, Coleraine township, Megantic county, Que.

Green diopside, Orford, Brompton Lake, Que.

Two samples of vesuvianite—one from American chrome pit, one from Southwark asbestos pit, Coleraine township, Megantic county, Que.

Four rocks of granite type, from T. T. Quirke.

White serpentine, Megantic Lambly mine, Ireland township, Megantic county, Que.

Chlorite, Montreal chrome pit, Coleraine township, Megantic county, Que.

Fine asbestos, King asbestos mine, Que.

Coarse asbestos, Vimy Ridge asbestos mine, Que.

He also completed other qualitative analyses connected with the routine of the division.

MUSEUM WORK

Owing to the limited staff and the pressure of more urgent work, it has been impossible to give this important branch of the division the attention it deserves. However, several museum cases were added to the National Museum; a travelling collection for the Geological Survey has been assembled; museum cases at 227 Sparks street were re-arranged, and a large number of specimens were classified in filing cabinets. A large number of very fine specimens were added to the collections by purchase and donation. An itemized list of these is given in the Annual Report of the National Museum.

EDUCATIONAL COLLECTIONS

The number of collections distributed to educational institutions has been maintained.

This year more than 7,500 minerals and 138 bags of specimens have been distributed, as follows:

Province	Standard	Grade 2	Grade 3	Miscel- laneous	Minerals, pros- pectors	Rocks, pros- pectors	Mineral chips
British Columbia.....	1	0	1	0	4	0	0
Alberta.....	0	0	1	0	1	0	0
Saskatchewan.....	0	0	0	1	5	0	0
Manitoba.....	0	1	1	2	3	0	0
Ontario.....	9	5	46	13	45	6	1
Quebec.....	3	0	5	5	17	1	1
New Brunswick.....	0	0	3	1	4	0	1
Nova Scotia.....	1	0	0	0	1	0	0
Foreign.....	0	1	1	8	24	0	0
	14	7	58	30	104	7	3

Total number of collections distributed = 221.

These collections were assembled by Mr. A. T. McKinnon and required almost 20 tons of rocks and minerals for their preparation.

PALÆONTOLOGICAL DIVISION

E. M. Kindle, Chief of Division, reports:

FIELD WORK

W. A. Bell commenced detailed mapping of Sydney coal field north and west of the published Sydney map No. 1767. A fuller reference to this and other field work by officers of this division is made in the section relating to the Geological Division.

E. M. Kindle was engaged in determining formation and systemic boundary lines in Gaspé peninsula. Work done was limited chiefly to the Percé to Port Daniel map-area near the eastern end of the peninsula, and to the Escuminac-Maria map-area bordering Chaleur bay. Mapping in Percé area has been carried on by C. H. Kindle under the supervision of E. M. Kindle.

F. H. McLearn continued geological mapping of the area in southern Saskatchewan between latitudes 49° - 52° and longitudes 102° - 109° , begun in 1927. Districts now completed within this area are: (a) Twelvemile Lake-Willow-bunch; (b) Fir Mountain; (c) Wood Creek; (d) Keoghs; (e) Rocky Creek, of interest for its dinosaur remains.

Miss A. E. Wilson spent the first part of the summer in mapping the southern section of the Thurso sheet, in which the Palæozoic rocks occur. The field work on the geological map of Cornwall area was completed during the latter part of the summer.

C. M. Sternberg was engaged in collecting fossil plants and invertebrates in southern Saskatchewan.

OFFICE WORK

A large share of the office work of the division has been devoted to the unusually large collections of fossils sent in to be used as the basis of reports determining stratigraphic sequence in areas that are being mapped.

W. A. Bell supplied the following reports: (a) Report on fossil plants from Alberta, submitted by Mr. B. R. MacKay; (b) Report on fossil plants from British Columbia, submitted by Mr. C. E. Cairnes; (c) Report on fossil plants from Alberta, submitted by Mr. C. S. Evans; (d) Report on collections of fossil plants from Campbellton, N.B., and from Gaspé, submitted by Mr. E. M. Kindle; (e) Partial report on fossil plants from Saskatchewan, submitted by Mr. F. H. McLearn, placed in hands of Dr. E. W. Berry along with bulk of collection; (f) Report on stratigraphy of oil and gas-bearing formations in the Maritime Provinces, for Economic Geology series "Report on Oil and Gas in eastern Canada," by Mr. G. S. Hume. In addition to reports on fossil plants for other field officers he was engaged in preparation of a memoir on the Pictou coal field.

E. M. Kindle has prepared reports on a number of collections submitted for the purpose of dating the formations represented. Some work has also been done on sea bottom sediments collected by cable repair ships in the area south and southeast of Newfoundland.

The office work of F. H. McLearn included: reports on collections of Mesozoic fossils submitted by field officers of the Geological Survey; continuation of a preliminary study of the faunas of the Upper Triassic Schooler Creek formation of the western part of Peace river and the preparation of a preliminary paper on this subject; a continuation of the study of Jurassic faunas of Skidegate inlet, a second contribution on which is now nearing completion; the plotting and assembling of notes on field work in southern Saskatchewan and the writing of a report on southern Saskatchewan for the Summary Report of the Geological Survey.

Miss A. E. Wilson continued work on the type catalogue. Considerable time was spent in reporting on the collections of Ordovician and Silurian fossils submitted by field officers. Work was completed on the report of the Cornwall area, including the fossils.

C. M. Sternberg has continued preparatory work on vertebrate collections and has submitted manuscripts on certain dinosaur collections.

Miss M. A. Fritz of the Department of Geology, Toronto University, completed sorting and indexing the old collections of invertebrate fossils which have been in storage, making it possible to locate any lots that may be required for reference.

COLLECTIONS

Reference to collections received and Museum exhibits has been made in the Annual Report of the National Museum.

BORINGS DIVISION

D. C. Maddox, Acting Chief of the Borings Division, reports:

The routine work of collecting information and samples from wells drilled for oil and gas and for water, from all parts of the Dominion, was continued during 1929. The filing of records, the organized storage of samples, and the work of sample examination were continued. During 1929 all samples were gone over and listed and tables showing their location were prepared.

The number of wells from which samples have been obtained is now about 800. Due to the enormous increase in the number of samples received, which was slightly over twice the number received in 1928—in itself a record to that date—the question of storage became acute. The present congestion may necessitate some system by which a limited number of samples may have to be rejected after examination and bottling and the passing of a certain time interval thereafter.

Three student assistants were employed during the summer months to help cope with the great number of samples coming in. One student assistant spent a few weeks in the Toronto office of Colonel Harkness, Gas Commissioner for Ontario, plotting on maps of the Borings Division the positions of oil and gas wells in Ontario. The positions of several thousand of such wells were plotted and the writer wishes to express his thanks to Colonel Harkness for the facilities provided for this work and for the help and advice given.

A limited amount of research work was done in the laboratory of the Borings Division, chiefly in separating heavy minerals contained in the sediments, and the mounting of them for future reference. About two hundred slides of this material were made during 1929 by M. Mahoney and F. J. Fraser, bringing the total to about six hundred. Time has not yet permitted many detailed reports to be made on the slides, but they will form a basis for future work. During the spring and autumn Mr. Fraser continued the work conducted in previous years on the sediments of southern Saskatchewan, brought in by Mr. F. H. McLearn. This work involves the determination of the heavy mineral content and the mechanical analysis of the sediments and may prove of value to the division in the future as providing data from which key horizons may be located. A certain amount of work was also done on the mechanical analysis of oil sands, examination of water, etc.

R. T. D. Wickenden continued the work begun in 1928 on western Cretaceous foraminifera, and the Borings Division co-operated with him in the matter of supplying samples of sediments obtained from wells. D. C. Maddox spent two weeks in field work with Mr. M. E. Wilson in Perth area, to study methods of outcrop mapping. In co-operation with Miss A. E. Wilson a certain amount of time was devoted to the location and examination of excavations in Ottawa district.

Assistance from the following sources is gratefully acknowledged.

The office of the Supervisory Mining Engineer of the Department of the Interior under Mr. C. C. Ross, which supplied borings samples and much valuable information as to the exact position of wells in the Prairie Provinces; and the yield of oil, gas, and water, and other items of interest in connexion with them.

Colonel R. B. Harkness, Gas Commissioner for Ontario, for information as to oil and gas wells drilled in Ontario and for the supplying of samples from wells of unusual interest.

Provincial Department of Health and the many Federal Government organizations—especially the Department of Agriculture—and many drillers of wells, for information as to water wells and water supply.

Dr. J. A. L. Henderson of the New Brunswick Gas and Oilfields Company, who continued co-operation in the supplying of information and samples from wells put down by that company.

Mr. John Ness of the Imperial Oil Company for information as to wells put down in Minudie district, N.S.

The chief points of interest from the individual provinces follow.

Nova Scotia. The only drilling for oil and gas was the putting down of a few test holes in Minudie district, Cumberland county, by the Imperial Oil Company.

Prince Edward Island. No drilling for oil and gas reported since the abandonment of the two wells put down by the Doherty interests in 1927.

New Brunswick. Drilling for oil and gas seems to have been confined to the New Brunswick Gas and Oilfields, Limited, in the area to the south of Moncton. Samples from some of the wells put down, including some from the wells in which salt was obtained, were received.

Province of Quebec. Considerable interest was shown in the oil and gas possibilities of the area between Montreal and Quebec. This area is underlain by Palæozoic rocks of Cambrian and Ordovician age and small flows of gas have in the past been obtained in this area both from the base of the drift, from the Trenton limestone, and from some of the shales that overlie the limestone, but no commercial production has been obtained to date and no samples or records were received by the Borings Division during 1929. Twenty-eight samples from a well put down some years ago at the Cap Rouge Experimental Station were examined and bottled.

Ontario. A number of samples from oil and gas wells were examined and bottled in order to provide type sections of the areas in which the wells were put down, or to obtain information as to certain stratigraphic conditions at depth. The number of samples so examined was 3,519, distributed as follows.

*Coste No. 7.....	Lot 17, con. 7.....	Dover, East, tp.....	Kent co.....	369
Delaware Development Co.	" 23, " 22.....	Caradoc tp.....	Middlesex co.....	231
*Suburban Gas Co.....	" 30, " 8.....	Nassagaweya tp.....	Halton co.....	209
Puslinch well.....	" 7, " 4.....	Puslinch tp.....	Wellington co.....	186
Bollert No. 1.....	" 7, " 6.....	" ".....	" ".....	406
St. Mary's Cement.	" 21, " 17.....	Blanshard tp.....	Perth co.....	297
Dominion Nat. Gas Co.				
No. 2.....				
Beachville.....		Oxford tp.....	Norfolk co.....	199
Manitoulin No. 1.....	Lot 4, con. 14.....	Assiginack tp.....	Oxford co.....	285
Roslyn No. 1.....	" 5, " 10.....	Tilbury, West, tp.....	Manitoulin co.....	45
Johnson and Hyatt.....	" 23, " S.R.....	Bosanquet tp.....	Essex co.....	348
Henderson well.....	" 11, " 3.....	Vaughan tp.....	Lambton co.....	221
*Colborne well.....	" 28, " 1.....	Cramahe tp.....	York co.....	283
Union Nat. Gas Co.....	" 24, " 5.....	Dawn tp.....	Northumberland co.....	123
*Kincardine Salt Co.....			Lambton co.....	224
			Bruce co.....	93

The asterisk opposite the name of the well indicates that the condensed log is published in the Summary Report, Part C. The total number of samples from all sources examined was 4,096.

Prairie Provinces. The success of drilling operations in Turner Valley field and in Red Coulée and other fields seems to have stimulated the search for oil and gas to an unprecedented extent. The number of samples received was greatly in excess of the figure for 1928. The more intensive development of proved fields and the drilling of wells in areas not yet tested for oil or gas or tested only to limited depths resulted in a great number of wells being drilled in areas both in the foothills and the prairie regions. Turner Valley field continued to be the main centre of interest and its production was approximately doubled in 1929. Much development work was done in Wainwright and Ribstone fields, however, and the discovery of oil in Red Coulée area in southern Alberta has stimulated further drilling in that area. The total number of samples received was 28,988, representing a section nearly 55 miles thick.

British Columbia. Sage Creek area continued to be the centre of interest. The Crow's Nest Oil Company's well, which has been drilled intermittently for several years, was further deepened as was the B.C. Oil Company's No. 2 well. Recent developments in the oil and gas occurrences in the area would seem to indicate that further drilling will probably be undertaken. The oil and gas possibilities of other points in British Columbia are receiving the attention of operators, but no drilling of a conclusive nature was undertaken in 1929. Samples from the following wells were examined and bottled: the Crow's Nest Oil Company; the B.C. Oil and Gas Company's No. 2; the Okanagan Oil and Gas Company; the Armstrong Oil Company; and a well put down for water, in Telkwa district, by Mr. C. G. Scott.

The total number of samples received from all parts was 36,024, representing a section about $68\frac{1}{2}$ miles thick, these being distributed as under. Of these 16,803 were bottled for future reference.

	Records	Samples
British Columbia.....	3	78
Prairie Provinces, oil and gas.....	228	28,783
“ “ water.....	93	205
Ontario, oil and gas.....	125	2,985
“ water.....	43	268
New Brunswick.....	16	3,619
Quebec.....	10	96
Nova Scotia.....	1	
Prince Edward Island.....		
Total.....	519	36,034

DRAUGHTING AND REPRODUCING DIVISION

C.-Omer Senécal, Geographer, and A. Dickison, Chief of the Draughting and Reproducing Division, jointly report:

Maps Published April 1, 1929, to March 31, 1930

Series A	Publication number	Title	Remarks
		BRITISH COLUMBIA AND YUKON	
218A	2169	Atlin sheet; scale, 1 inch to 8 miles.....	Geology.
		BRITISH COLUMBIA	
199A	2143	Britannia Beach sheet, New Westminster district; scale, 1 inch to 1 mile.....	Geology. For memoir by H. T. James.

Maps Published April 1, 1929, to March 31, 1930—Continued

Series A	Publication number	Title	Remarks
BRITISH COLUMBIA—Continued			
—	2180	Ore deposits of the Britannia shear zone, New Westminster district; scale, 1 inch to 200 feet....	Geology. For memoir by H. T. James.
215A	2166	Stewart sheet (west half), Cassiar district; scale, 1 inch to 1 mile.....	Geology. For memoir by G. Hanson.
216A	2167	Bear River sheet (west half), Cassiar district; scale, 1 inch to 1 mile.....	Geology. For memoir by G. Hanson.
217A	2168	Bear River sheet (west half), Cassiar district; scale, 1 inch to 1 mile.....	Topography.
232A	2192	Portion of Slokan and Upper Arrow Lakes area, Kootenay district; scale, 1 inch to 2 miles.....	Geology. For report by C. E. Cairnes, Summary Report, part A, 1928.
235A	2196	Lardeau area, Kootenay district; scale, 1 inch to 4 miles.....	Geology. For memoir by M. F. Bancroft, J. F. Walker, and H. C. Gunning.
236A	2198	Kootenay Lake area, Kootenay district; scale, 1 inch to 4 miles.....	Geology. For report by J. F. Walker, Summary Report, part A, 1928.
237A	2200	Big Bend area, Columbia river; scale, 1 inch to 4 miles.....	Geology. For report by H. C. Gunning, Summary Report, part A, 1928.
ALBERTA			
208A	2157	Mountain Park sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Geology. For memoir by B. R. MacKay.
209A	2158	Cadomin sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Geology. For memoir by B. R. MacKay.
225A	2183	Brûlé Mines area; scale, 1 inch to 1,000 feet.....	Geology. For report by B. R. MacKay, Summary Report, part B, 1928.
226A	2184	Lovett sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Topography.
228A	2186	Cardinal River sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Topography.
229A	2187	Turner Valley sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Topography.
SASKATCHEWAN AND MANITOBA			
233A	2194	Reindeer Lake area; scale, 1 inch to 6 miles.....	Geology. For report by C. H. Stockwell, Summary Report, part B, 1928.
MANITOBA			
234A	2195	Kississing Lake area; scale, 1 inch to 2 miles.....	Geology. For report by J. F. Wright, Summary Report, part B, 1928.
—	2199	Figure 3. Sherritt-Gordon deposit, Kississing Lake area; scale, 1 inch to 800 feet.....	Geology. For report by J. F. Wright, Summary Report, part B, 1928.
ONTARIO			
155A	1553	Lake Huron sheet; scale, 1 inch to 8 miles.....	Geology. Second edition.
197A	1939	Fort William and Port Arthur sheet, Thunder Bay district; scale, 1 inch to 1 mile.....	Geology (surface deposits). For memoir by T. L. Tanton.

Maps Published April 1, 1929, to March 31, 1930—Continued

Series A	Publication number	Title	Remarks
ONTARIO—Continued			
220A	2173	Panache sheet, Sudbury and Manitoulin districts; scale, 1 inch to 1 mile.....	Geology. For memoir by T. T. Quirke and W. H. Collins.
221A	2174	Collins Inlet sheet, Manitoulin and Sudbury districts; scale, 1 inch to 1 mile.....	Geology. For memoir by T. T. Quirke and W. H. Collins.
239A	2205	Key Harbour sheet, Parry Sound and Sudbury districts; scale, 1 inch to 1 mile.....	Geology. For memoir by T. T. Quirke.
244A	2219	Panache sheet, Sudbury and Manitoulin districts; scale, 1 inch to 1 mile.....	Geography.
245A	2220	Collins Inlet sheet, Manitoulin and Sudbury districts; scale, 1 inch to 1 mile.....	Geography.
246A	2221	Key Harbour sheet, Parry Sound and Sudbury districts; scale, 1 inch to 1 mile.....	Geography.
247A	2222	Delamere sheet, Sudbury and Parry Sound districts; scale, 1 inch to 1 mile.....	Geography.
QUEBEC			
210A	2129	Part of Lemieux township, Gaspé county; scale, 1 inch to $\frac{1}{4}$ mile.....	Geology. Reprint. For Economic Geology Series, No. 8: "Zinc and Lead Deposits of Canada", by F. J. Alcock.
224A	2179	Dubuisson sheet, Abitibi county; scale, 1 inch to 1 mile.....	Geology.
240A	2208	Opasatika sheet, Témiscamingue county; scale, 1 inch to 1 mile.....	Geology.
NOVA SCOTIA			
—	2153	Mahone Bay sheet, No. 88, Lunenburg county; scale, 1 inch to 1 mile.....	Geology.
—	2154	Bridgewater sheet, No. 89, Lunenburg county; scale, 1 inch to 1 mile.....	Geology.
EASTERN CANADA			
—	2213	Sheet 1. Profiles of peat bogs in eastern Canada..	Geology. For memoir by V. Auer.
—	2214	Sheet 2. Profiles of peat bogs in eastern Canada..	Geology. For memoir by V. Auer.
—	2215	Sheet 3. Sections of peat bogs in eastern Canada..	Geology. For memoir by V. Auer.

Maps in Hands of King's Printer, March 31, 1930

Series A	Publication number	Title	Remarks
ONTARIO			
238A	2204	Delamere sheet, Sudbury and Parry Sound districts, scale, 1 inch to 1 mile.....	Geology. For memoir by T. T. Quirke.
QUEBEC			
242A	2212	Escuminac sheet, Bonaventure county; scale, 1 inch to 1 mile.....	Geography.
NOVA SCOTIA			
241A	2211	Digby sheet, Digby and Annapolis counties; scale, 1 inch to 1 mile.....	Geography.

Other Map-Work in Varying Stages of Progress

	Title	Remarks
BRITISH COLUMBIA		
1	Quatsino-Nimkish area, north Vancouver island; scale, 1 inch to 2 miles.....	Geology. For report by H. C. Gunning, Summary Report, part A, 1929.
2	Summit of Nickel Plate mountain (near Hedley), Similkameen district; scale, 1 inch to 500 feet.....	
3	Topley sheet, Coast district; scale, 1 inch to 1 mile.....	Geology. For report by H. S. Bostock, Summary Report, part A, 1929.
4	Stikine area, Cassiar district, 56° 30'–57° 00', 131° 00'–132° 00'; scale, 1 inch to 2 miles.....	
5	Stikine area, Cassiar district, 57° 00'–57° 30', 131° 00'–132° 00'; scale, 1 inch to 2 miles.....	Geology.
6	Stikine area, Cassiar district, 57° 30'–58° 00', 131° 00'–132° 00'; scale, 1 inch to 2 miles.....	Geology.
7	Copper Mountain mining area, Similkameen district; scale, 1 inch to 1,000 feet.....	Geology.
		Geology. For memoir by V. Dolmage.
ALBERTA		
1	Lovett sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Geology. For memoir by B. R. McKay.
2	Cardinal River sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	
3	Turner Valley sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Geology. For memoir by B. R. McKay.
4	Bragg Creek sheet (east half), west of fifth meridian; scale, 1 inch to 1 mile.....	
5	Bragg Creek sheet (east half), west of fifth meridian; scale, 1 inch to 1 mile.....	Topography.
6	Jumpingpound sheet (west of fifth meridian); scale, 1 inch to 1 mile.....	Geology.
7	Thoreau Creek area (west of sixth meridian); scale, 1 inch to 1,000 feet.....	Topography.
8	Cadomin-Luscar coal basin; scale, 1 inch to 2,000 feet..	Geology. For memoir by B. R. McKay.
		Geology. For memoir by B. R. McKay.
MANITOBA		
1	Winnipeg sheet; scale, 1 inch to 8 miles.....	Geology (surface deposits).
ONTARIO		
1	Espanola sheet, Sudbury district; scale, 1 inch to 1 mile.....	Geology.
2	Shebandowan sheet, Thunder Bay district; scale, 1 inch to 1 mile.....	
QUEBEC		
1	Rouyn Mineral area, Abitibi and Témiscamingue counties; scale, 1 inch to 4 miles.....	Geology. For memoir by H. C. Cooke, W. F. James, and J. B. Mawdsley.
NEW BRUNSWICK		
1	New Brunswick sheet; scale, 1 inch to 8 miles.....	Geology.
2	Hillsborough sheet, Albert and Westmorland counties; scale, 1 inch to 1 mile.....	
		Topography.
NOVA SCOTIA		
1	Bridgetown sheet, Annapolis county; scale, 1 inch to 1 mile.....	Topography.
2	Ainslie sheet, Inverness county; scale, 1 inch to 1 mile.....	

In addition to the foregoing, ninety-four map and related figure drawings were prepared for reproduction by zinc-cut process, for illustrating of reports, memoirs, and bulletins; a series of twelve figure drawings was also prepared for reproduction by photolithography, for memoir on "The Niagara Falls Survey of 1927," by W. H. Boyd; other draughting and associated work necessary for staff and public use amounted to one hundred and sixteen items. Duties in connexion with the Geographic Board of Canada have, as usual, been attended to.

PHOTOGRAPHIC DIVISION

G. G. Clarke, Chief of the Division, reports:

The following work has been done in this division during the fiscal year:

Contact prints, 4 x 5 to 36 x 48.....	15,235
Bromide enlargements, 4 x 5 to 40 x 72.....	972
Exposures developed, 3½ x 4½ to 6½ x 8½.....	4,763
Dry plate negatives, 4 x 5 to 11 x 14.....	548
Wet plate negatives, 8 x 10 to 24 x 30.....	204
Zinc plates, 11 x 14 to 24 x 36.....	23
Photostat copies, 7 x 11 to 11 x 14.....	66
Lantern slides, 3½ x 4.....	1,625
Photos and maps mounted.....	3,052

Total	26,488
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GEOLOGICAL INFORMATION AND DISTRIBUTION DIVISION

Wyatt Malcolm, Chief of the Division, reports:

The work of the division consists in answering inquiries for information regarding the geology and mineral resources of Canada. This information is imparted verbally to those making application in person, and is given to others in the form of correspondence, memoranda, and published reports and maps. A considerable part of the technical correspondence of the Geological Survey is dealt with.

Articles were prepared during the year for publication in the British press and the Canada Year Book. These articles dealt with subjects such as the importance and status of the mineral industry of Canada, and the progress made. Numerous short articles were prepared for the use of the press. In this way the readers of the newspapers and mining and scientific journals were kept informed of the nature of the publications issued from time to time by the Survey.

The publications of the Geological Survey and of the National Museum of Canada are distributed by this division. During the year, 48,766 publications, exclusive of the French editions, were distributed. Of these, 15,055 were sent to addresses on the regular mailing lists, and 33,711 were distributed in compliance with written and personal requests for named publications, or requests for general or specific information.

LIBRARY

Mrs. F. E. Forsey, Librarian, reports:

Additions to the Library during the year include:

Books purchased	650
Volumes received as gifts or exchanges	963
Pamphlets	361
Maps	443
Periodicals subscribed for	202
Periodicals and serial publications by gift and exchange.....	498

Six hundred and ninety-three books were bound and 256 maps mounted. The catalogue was increased by 3,452 cards, and the work of keeping the files complete by correspondence was continued.

The recorded loans amounted to 8,234 books and maps, in addition to those used by the many readers who consulted the library in person. Inter-library loans were made to Canadian and United States universities, to Government departments in Ottawa, and in the various provinces.

Notable progress has been made during the year in bringing the collection of photographs up to date and in cataloguing and preparing lantern slides for loan purposes. The total number of maps catalogued during the year was 554.

The filing of the Gray Herbarium Botanical Index, which was purchased in 1928, has gone steadily forward, and is kept up to date as new sets of the cards are received. This unique and important index is regarded as the most valuable aid to botanical research on the continent, and since its installation in the Library has been frequently consulted, not only by botanists in Ottawa, but, by correspondence, throughout Canada.

Additional space for expansion has been provided in the gallery of the Library, formerly occupied by the Royal Society library.

The Library has been fortunate in acquiring from Mr. Johansen several hundred volumes, separates, and parts of publications needed to complete important series of European learned societies, the collections being especially rich in Scandinavian material. Among these may be mentioned Drygalski's *Greenland Expedition, 1897*; *Danmarks Fauna, vols. 1-33, 1907-1927*; *Zoologische Anzeiger, vols. 1-13, 1879-1890*; *Revue Zoologique par la Société Cuverienne, vols. 4-11, 1841-48*; *Ergebnisse der Hamburger Magalhaenischen Sammelreise, vols. 1-3, 1896-1907*, and many valuable *Handlingar* of the Royal Society of Stockholm. Other important purchases are: *Journal für Ornithologie, vols. 1-date*; Austria K. K. *Geologische Reichsanstalt Verhandlungen, 1892-1911*; *Société Neuchateloise des Science Naturalles, bulletins 4-16, 1858-1888* and Brehm's *Tierleben* in 10 volumes. The Explorers' Club of New York presented to the Library their unique facsimile publication of the *Scoresby Log-books, Concerning the Arctic Voyages of Captain William Scoresby*; The *Missouri Botanical Garden* brought up to date our set of their *Annals*; and the *Heidelberg Academie der Wissenschaften* presented a complete set of their *Sitzungsberichte* and *Abhandlungen*.

BRITISH COLUMBIA OFFICE

W. E. Cockfield, Geologist in Charge, reports:

The activities of the British Columbia Office show little falling off. During the year 4,200 visitors registered at the office and 450 inquiries were answered by letter, also a large number by telephone; 1,874 reports and 2,699 maps were distributed; and a large number of specimens of rocks and minerals were examined and reported on. Seventeen public lectures on geological and mining subjects were given by the staff during the year. Examination of the drill cores for the proposed Canadian Pacific Railway, False Creek Yard, tunnel under the city was also undertaken.

The staff of the office was changed during the year; W. E. Cockfield, as Officer in Charge, replacing V. Dolmage, who resigned, and J. F. Walker replacing F. A. Kerr, who was transferred to Ottawa. The staff is now composed of W. E. Cockfield and J. F. Walker, geologists, and A. J. C. Nettell, assistant engineer.

NATIONAL MUSEUM OF CANADA

W. H. Collins, Acting Director

Satisfactory progress was made in the work of the National Museum of Canada during the year 1929, in the collecting of material for purposes of scientific study and exhibition, in systematic scientific research, in the public display material in the Museum halls, and in general educational activities.

Anthropological investigations were carried on among the Tsimshian Indians of Nass River region, the Kwakiutl and Nootka tribes of Vancouver island, the Indians in the vicinity of Norman on Mackenzie river and of Peace River district, and the Ojibway of Georgian bay. Excavations were made of Indian village sites on the north shore of the St. Lawrence. A study of the mammalian life of southern British Columbia was continued, and observations on the fauna of the Arctic were made by a member of the Museum staff who accompanied the Canadian Government Expedition on the Canadian Government steamship *Beothic*. Botanical surveys were made in Wood Buffalo park, in the valley of Restigouche river, and in southwestern New Brunswick. In all cases material was collected for research and for exhibition purposes.

For geological, mineralogical, and palæontological exhibits the National Museum is dependent on the Geological Survey, with which there is most sympathetic co-operation. To the members of the Geological Survey staff who have made collections for the Museum and who have contributed generously of their time and energy in the preparation of exhibits, sincere appreciation is here expressed.

For co-operation in the preparation of exhibits the Museum is indebted to the Forestry Branch, Department of the Interior, and to the Entomological Branch, Department of Agriculture.

During the year the equipment was increased by the purchase of thirty steel table cases, and it is the wish of the Museum officials to continue adding to the supply of cases and other equipment and material even at the risk of being accused of overcrowding.

The Acting Director of the Museum here expresses his gratitude to the Canadian National Parks Branch and the North West Territories Branch, Department of the Interior, to the Department of Indian Affairs, the Royal Canadian Mounted Police, and other Government departments for valuable assistance and friendly co-operation. He also wishes to express to many individuals and organizations, both Canadian and foreign, his most cordial appreciation for donations and exchanges and for assistance rendered in connexion with scientific investigations.

ANTHROPOLOGICAL DIVISION

D. Jenness, Chief of the Anthropological Division, reports:

FIELD WORK

D. Jenness left for Java on March 31 to attend the Fourth Pacific Science Congress as one of the two delegates representing the Dominion of Canada and carried the official invitation of the Canadian Government that the Congress

should hold its next session in the year 1932 in Canada. He returned to Ottawa early in July, and left almost immediately to conduct some ethnological researches among the Ojibwa Indians of Georgian bay. During a two month's stay on the Indian reserve at Parry island he gathered much new and valuable information concerning their social life and religious beliefs before they were greatly influenced by contact with European civilization.

C. M. Barbeau completed during the summer field season his survey, commenced over ten years ago, of the Tsimshian tribes of northern British Columbia. This year he devoted his attention particularly to the social organization, language, and æsthetic arts of the Nass River group. He also collected some specimens for the National Museum, and some totem poles for the Royal Ontario Museum of Archæology.

Harlan I. Smith went to Vancouver island in May to collect ethnological and archæological material, and to take moving pictures of the various Indian tribes. His field work added 363 specimens to the Museum's collections, and 6,000 feet of motion picture film, in addition to a large number of still pictures. On Hornby island he discovered and photographed many petroglyphs that had not been previously recorded.

W. J. Wintemberg made an archæological investigation of the west coast of Newfoundland, from June to early September, and discovered there, rather unexpectedly, the remains of many Eskimo settlements predating the discovery of the island by Europeans. The specimens he collected from these sites indicate that the inhabitants were an offshoot of an early group of tribes whose real centre may have been in Hudson bay, but whose civilization possessed many peculiar features not as yet fully determined.

J. C. Boileau Grant, Professor of Anatomy in the University of Manitoba, continued his anthropometric survey of the northern tribes of Canada, working this year along the valley of Peace river among the Cree and Beaver Indians. It is expected that he will supplement this year's survey with a similar study during the coming year, of the related Indians of Great Slave lake, and work up the combined results of the two field trips into a comprehensive report that will cover all the Indian tribes of this area.

C. B. Osgood, who went down Mackenzie river to Norman in the summer of 1928 to make an ethnological study of the Hare Indians, passed a very successful winter with that tribe on Great Bear lake, and obtained a large number of notes on their mode of life, their customs and religious beliefs, which he is now working up into a consecutive report. He had an opportunity during the spring to study the Mountain Indians who live to the west of Norman, and will incorporate in his report an account of this tribe also. He procured for the Museum fifty phonograph records of Hare Indian songs, and fifty-six specimens of their clothing, tools, and household furniture.

OFFICE WORK

Since his return from the field Mr. Jenness has been working up his field notes on the Ojibwa Indians for publication as a museum bulletin, and continuing his text-book on the Indians of Canada, which is now nearing completion. Mr. Barbeau has in hand a selection of Indian songs from Nass and Skeena rivers, and Mr. Wintemberg has just completed a detailed report on the Roebuck village site, in Ontario, which he excavated some years ago. Mr. Smith was occupied during the winter in arranging the moving picture films which he has secured during the past few years; he has now completed six reels illustrating different Indian tribes in British Columbia.

The division published two scientific reports during the past fiscal year: "Some Shell-heaps in Nova Scotia," by Harlan I. Smith and W. J. Wintenberg; and "Anthropometry of the Cree and Ojibwa Indians of Northeastern Manitoba," by Dr. J. C. B. Grant. Three other reports are either in press or in the hands of the editors, viz.: "Totem-poles of the Gitksan," by C. M. Barbeau; "Anthropometry of Cree and Chipewyan Indians of Lake Athabaska," by J. C. Boileau Grant; and "Sacred Stories of the Sweet Grass Cree," by L. Bloomfield.

There was an unusual number of requests during the year for the loan of exhibition material. Early in the spring a small exhibit of fire-lighting apparatus was installed at the Y.M.C.A., Ottawa, for a boys' hobby show, and another of Canadian handicraft material in the Chateau Laurier for the Art Association of Ottawa. In September a high school at Windsor, Ontario, asked for and received the loan of a small selection of Indian specimens. In October, at the request of the Department of Trade and Commerce, Ottawa, a valuable collection of specimens was forwarded to the Imperial Institute, London, England, where they will be on display for several months; and from October to January the Canadian National railways received from the division, on loan, five collections of specimens illustrating Indian games, music, weapons, embroidery, and art, for exhibition in their ticket offices throughout Canada, and in certain cities of the United States.

Three archæologists from the United States visited the Museum during the summer. Mr. N. C. Nelson, of the American Museum of Natural History, New York, made a rapid survey of its archæological collections; Dr. Warren K. Moorehead, of Andover, Mass., spent several days studying its collection of stone axes and adzes; and Mr. H. B. Collins, of the Smithsonian Institute, Washington, came to examine large collections from Alaska.

MUSEUM WORK

The large exhibition cases installed last year in the east exhibition hall were equipped this year with diaphragms, and the entire north row filled with attractive specimens from the plains and plateau tribes of Canada. The division is assembling a series of synoptic exhibits of Indian basketry, musical instruments, etc., for installation in the large cases on the south side of the same hall, preceded by a special introductory exhibit of some of the palæolithic material from Europe collected by Dr. H. M. Ami. During the winter Dr. Ami placed in the division's care an excellent replica of two clay bisons recently discovered in a palæolithic cave in France; these are being installed in a special case near the entrance of the hall, pending their arrangement as the central feature of a habitat group depicting the artistic achievements of early man about the close of the Ice age.

A large number of table cases were acquired during the year and placed around the walls of the east exhibition hall. The division plans to arrange a series of archæological exhibits in these table cases as soon as their interiors are equipped with heavy beaverboard foundations.

Accessions to Museum

The anthropological collections of the Museum were augmented during the year, mainly through its staff, as follows:

	Specimens
Ethnological	517
Archæological	1,200
Osteological	3

BIOLOGICAL DIVISION

R. M. Anderson, Chief of the Division, reports:

FIELD WORK

R. M. Anderson attended the Eleventh Annual Meeting of the American Society of Mammalogists held April 10 to 13, 1929, in the Museum of Zoology, University of Michigan, Ann Arbor, Michigan.

Mr. Anderson also planned and carried out an extensive campaign of field work in southern British Columbia during the season of 1929, in continuation of a biological reconnaissance of the region in the vicinity of the International Boundary line between the province of British Columbia and the states of Washington, Idaho, and Montana. The data and specimens collected are expected to be used as a basis for a later faunal report on the mammals of the International Boundary region of southern British Columbia from the strait of Georgia to the Alberta boundary.

This project was begun in the spring of 1927—and carried on by C. H. Young, senior collector-preparator on the Museum staff, assisted by H. M. Laing, of Comox, B.C. They made extensive collections in the low, humid Pacific coast belt and continued over the Hope-Princeton summit to the eastern slope of Cascade mountains. In 1928 Mr. Laing continued the work, beginning at Sterling creek (elevation 1,700 feet) on the east slope of Cascade mountains near Hedley, B.C., carrying the survey as far east as Westbridge in Kettle River valley (elevation 2,075 feet), going back later in the autumn for investigations on Juniper mountain, south fork of Ashnola creek (elevation 4,500 feet).

In 1929, Mr. Laing was again engaged and began work on May 4 in the arid belt of southern Okanagan valley covering the area from Osoyoos lake to Rossland.

R. M. Anderson left Ottawa on June 27 and reached Rossland on July 2, remaining with the party until the close of the season.

On August 6, the party left Rossland and proceeded to Creston. Camp was situated on flat lands west of Kootenay river, where the party remained until August 23. Extensive forest fires prevented exploration of Boundary creek and Summit lake and ultimately compelled retreat from Creston district.

On August 23, the party established camp on a little stream about one mile from Moyie river. Small mammal life was not abundant as a large part of the valley was burned-over land and the hillsides were too dry. A small collection was made here.

Through the courtesy of Mr. H. B. Murray, of the Canadian Pacific railway, camp was established, August 31, on Meadow creek (elevation 3,500 feet) about 3 miles from the British Columbia-Idaho-Montana corner. Work was carried on from this camp until October 3. Considerable collecting was done on American creek, Flatiron mountain, and on Cold creek. Mr. Hall, student assistant, spent over a week near the head of Cold creek at about 4,500 feet elevation. Short trips were made to tops of neighbouring mountains up to about 6,000 feet.

After completing the field work at Yahk, Mr. Anderson continued to Vancouver and interviewed the Game Commissioner of the province, Mr. A. Bryan Williams, from whom he obtained information on some of the big game species. Mr. Anderson also examined the Kenneth Race collection of mammals and birds of British Columbia. At Victoria he spent some time at the Provincial Museum and made notes on the British Columbia mammals in the collection. On the return trip he stopped off at Okanagan Landing, B.C., and examined the large collections of Major Allan Brooks and of J. A. Munro, also

checked up mammal notes with Major Brooks, and made preliminary arrangements for a series of coloured drawings, of big game and fur-bearing mammals of Canada, for a work on the Mammals of Canada which Mr. Anderson is preparing for the department. Twenty-four plates of mammals were completed by Major Brooks later in the year. After returning to Ottawa, Mr. Anderson attended the 47th Annual Meeting of the American Ornithologists' Union, held at Philadelphia, October 21 to 25. While there he spent some time carefully examining and making notes on a rather large number of British Columbia mammals in the collections of the Academy of Natural Sciences, which include several types of mammals collected and described from southern British Columbia by the late Samuel N. Rhoads of Philadelphia, and interesting Canadian material from other collectors.

P. A. Taverner, ornithologist, accompanied the Canadian Arctic Expedition of 1929 as naturalist on S.S. *Beothic* to Greenland, the eastern islands of the Canadian Arctic archipelago, Hudson strait, and into Hudson bay to Chesterfield inlet. The *Beothic* left North Sydney, N.S., July 20, with Mr. George P. Mackenzie, Officer in Charge, making its first call at Godhavn, Greenland, on July 27. The ship then proceeded to Dundas Harbour, Devon island, and from thence to cape Sparbo, on the north coast of Devon island, where a well-known herd of musk-oxen is still found, and where many excellent still and motion pictures of musk-oxen were secured. From Sparbo the ship proceeded to Craig harbour, Ellesmere island, and thence to Buchanan bay, where supplies for the Bache Peninsula post were landed at cape Rutherford. Turning south stops were made at Etah and Nerke Settlement, North Greenland; Dundas Harbour, Devon island; Ponds inlet, Clyde river, Pangnirtung, and Lake Harbour, all on Baffin island. The boat then proceeded into Hudson bay to Chesterfield inlet to land provisions and coal for the Royal Canadian Mounted Police detachment, and building material for the medical officer to be stationed there. On the return the *Beothic* stopped at Carys Swan Nest on Coats island; Lake Harbour, Baffin island; Acadia cove, Resolution island, where a direction-finding station is being established by the Department of Marine; touched at Port Burwell on the south entrance to Hudson strait, and cruising down the Labrador coast, reached North Sydney again on September 3, after travelling 7,800 miles.

Joseph Rochon, osteological preparator, left Ottawa on July 16 and proceeded to Trout lake and lake Pourri, Labelle county, Quebec, returning August 25 with 107 specimens of small mammals. During the rest of the year his time was mostly spent in macerating, cleaning, and preparing skulls and skeletons of mammals and birds.

Clyde L. Patch, chief taxidermist and herpetologist, D. Blakely, taxidermist, and Claude E. Johnson, artist, did some field work in Ottawa district, principally collecting local material to fill out the collections and obtaining accessories for habitat group work.

PUBLICATIONS

R. M. Anderson continued work as general editor of scientific reports of Canadian Arctic Expedition, 1913-18. No new parts were issued during the year, but preparations are being made to close up some of the unfinished volumes, and some progress has been made in preparing some of the completed volumes of the series.

At the request of Professor Julian Huxley, Departmental Editor of Section Biology and Zoology, Mr. Anderson wrote the article on "Fur-bearing Animals (Land)" which was published in 13th Edition of the Encyclopaedia Britannica, issued in 1929. He has also completed one section of the manuscript for a museum bulletin on "Methods of Collecting and Preserving Animals for Study." The line drawings for illustration have been prepared by Claude E. Johnson, artist

of the Division of Biology. Some progress has been made on the "Check-List of Canadian Mammals" and a large amount of data has been accumulated adding to its completeness. A good start has also been made in the preparation of an illustrated book on "Mammals of Canada," planned to include analytical keys for determination of species, adequate descriptions of every form of mammal known to occur in Canada, distribution maps, bibliographical data, and general accounts of life histories and habits of the most important species. Several book reviews and mammal notes were published in *The Canadian Field-Naturalist*, Ottawa, of which Mr. Anderson is Associate Editor in Mammalogy.

The introduction was by Mr. Laing, pages 64-71. "Notes on Birds Collected and Observed in Chitina River Region, Alaska" gives field notes on eighty-five species by Mr. Laing, with systematic notes by Mr. Taverner, pages 72-95. "Notes on Mammals of Upper Chitina River Region, Alaska," gives field notes on seventeen species by Mr. Laing and systematic notes by Mr. Anderson, pages 96-107.

Mr. Taverner also prepared an article on "Some Zoological Aspects of the Canadian Arctic Expedition of 1928," which was published in *The Canadian Field-Naturalist*, vol. XLIV, 2, February, 1930, pages 25-27. Mr. Taverner also completed the manuscript and drawings for a bulletin on "Water Birds, Game Birds, and Hawks of Canada."

During the year an edition of 3,000 copies of sixty picture postcards of birds was issued about December 18. The coloured illustrations were made from plates of "Birds of Western Canada," some from "Birds of Eastern Canada," and some from new paintings by Major Allan Brooks. Each card contains one coloured illustration, accompanied by descriptive text, and the cards are supplied in sets, in carton, for sale at \$1, and also loose, for sale at two for 5 cents.

A valuable paper on "Freshwater Mollusca from Central Ontario," by Frank Collins Baker and Alvin Robert Cahn, based on recent collections made in Ontario and on other material in different collections, has been received for publication. The authors have generously offered to give the National Museum of Canada duplicate specimens of the species collected on the expedition, as well as cotypes of new forms which are described. This report is a contribution of interest both in the field of recent zoology and of invertebrate palæontology.

MUSEUM WORK

The Forestry Branch, Department of the Interior, has made a beginning of exhibition of certain forest products, and has filled one large case with two exhibits: (1) The manufacture of wood pulp, illustrating the groundwork, sulphate, sulphite, and soda processes; (2) some products of wood pulp, including rayon thread and weaves, wallpaper, twine, rope, fibreware, wall-boards, and artificial wood. Part of the material for four large tree exhibits has been shipped in, but not yet installed.

The Curator of Insects in the Museum, Mr. Arthur Gibson, Dominion Entomologist, has aided in the installation of a case of silk products, the bulk of the material being supplied by the General Silk Corporation.

As a result of field work by members of the staff, considerable additions have been made to the study collections, and much material obtained suitable for subsequent mounting. The scientific officers of the staff have devoted such time as other duties permitted, to determining, classifying, and making systematic notes on specimens examined.

The work of identifying and systematically arranging the collections in zoology and botany which are coming in, and making the data obtained from field notes, correspondence with specialists and local naturalists, and study of specimens available for reference is an important feature, and the results are embodied from time to time in Museum reports and bulletins and in

technical scientific periodicals. The officers of the Division of Biology are prepared to identify and return Canadian specimens of mammals, birds, reptiles, or amphibians, which are sent in a fair state of preservation and with sufficient data in regard to locality, date of collecting, and sex if possible. Where possible the Museum would be pleased to have duplicate specimens sent for deposit in the National collection. The Chief Botanist will only attempt to determine plants when properly pressed, showing roots, stem, leaves, and if possible flowers or fruit, and it is requested that one or two duplicates of each form be sent for dissection and for permanent preservation in the National Herbarium.

The National Parks of Canada, Department of the Interior, through the Commissioner, Mr. J. B. Harkin, has kindly continued to send in many specimens of large game or predatory fur-bearing mammals from the various national parks, the North West Territories and Yukon Branch, Department of the Interior, through Mr. O. S. Finnie, director, and the members of various detachments of the Royal Canadian Mounted Police, through the Commissioner, Colonel Cortlandt Starnes, have continued to send in valuable materials from the Far North, which are very acceptable to the Museum. As the area of the Dominion of Canada is so large, and the Museum staff limited, the only hope of obtaining needed material from many districts is by donations and interested friends and public-spirited sportsmen and travellers.

The Hudson's Bay Company, the largest establishment engaged in the fur business in the British Empire, has for some time been interested in having studies made of the periodical fluctuations in the numbers of wild animals in the districts where the company operates trading posts. There is in many cases confusion in regard to data based on inadequate and inaccurate determinations of species of the smaller mammals which are not so well-known and which occupy different ecological niches. To check up this data it was considered necessary to have collections of small mammals made at different points and properly identified. Mr. C. V. Sale, Governor of the Hudson's Bay Company, authorized Chief Factor Charles H. French, Fur Trade Commissioner of the Company at Winnipeg, to co-operate with R. M. Anderson in the matter in the spring of 1929. Forty small sets of collecting equipment, including tools, small traps, preservatives, labels, and mimeographed instructions for preserving mammals for scientific purposes for the National Museum of Canada, were accordingly prepared at Ottawa and shipped by direction of the Fur Trade Commissioner's office to the District Managers' offices at Montreal, Winnipeg, Saskatoon, North Bay, Edmonton, and Vancouver, and from thence distributed to forty different posts of the Hudson's Bay Company.

These forty posts were selected as being in suitable positions to give a cross-section through a great part of northern Canada and with the co-operation of the intelligent managers in charge of many of the posts and their facilities for obtaining material from Eskimos, Indians, and white trappers, it is hoped that much scientific data will be obtained to the advantage of both the Hudson's Bay Company and the National Museum. As the posts are in most cases remote and difficult of access, results are hardly expected until one winter after the shipment of equipment and instructions. However, small lots of mice were received in the autumn of 1929 from Ile-a-la-Crosse, Saskatchewan, and two species of lemmings from Lake Harbour, Baffin island, and more are expected during the summer of 1930.

Accessions to Museum

Accessions to the zoological collections:

Mammals received and catalogued	846
Birds received and catalogued	293
Amphibians and reptiles received and catalogued.....	96

NATIONAL HERBARIUM

M. O. Malte, Chief Botanist, National Herbarium, with Mr. W. R. Watson, as student assistant, made a botanical survey of St. Andrews and vicinity, New Brunswick. More than 600 species and varieties of flowering plants and ferns were collected.

H. M. Raup, assisted by Mrs. Raup, continued investigations on the flora of Wood Buffalo park, Alberta.

J. Rousseau made a botanical exploration of the districts of St. Urbain and Matapedia, Quebec, collecting about 500 flowering plants and ferns, aggregating approximately 3,000 herbarium sheets.

M. O. Malte continued work on Arctic botany in co-operation with Professor C. H. Ostenfeld, Copenhagen, Denmark, who spent about one month at the National Museum determining collections and preparing manuscript for a "Flora of Arctic Canada".

Through the co-operation of the Forestry Branch, Department of the Interior, samples of five trunks of different trees were secured for exhibit in the Museum.

Plants distributed:

Prof. C. H. Ostenfeld, Copenhagen, Denmark. 47

Plants received outside of collections made by staff:

Gray Herbarium, Cambridge, Mass. 28

Prof. M. L. Fernald, Cambridge, Mass. 12

MINES BRANCH

John McLeish, Director

The annual value of the mineral production in Canada continues to increase rapidly, having grown from \$86,000,000 in 1907 to \$189,000,000 in 1917, and \$247,000,000 in 1927. In 1929 the production had risen to \$307,000,000, or the production per capita in 1907 was \$13.75; in 1917 it was \$23.18; in 1927, \$25.97, and in 1929 it reached a maximum of \$31.35. The rapidly accelerating growth of this industry has been due not alone to the finding of new mineral deposits, but must be ascribed in considerable measure to the improvements that are constantly being made in the metallurgical treatment of ores, and to new uses developed for numerous products of the mine.

To this development the Mines Branch, Department of Mines, can properly claim to have made a substantial contribution through the collection and dissemination of information respecting Canadian mineral resources, and especially through the test and research work being carried on in its ore dressing and metallurgical laboratories, its fuel research laboratories, and its laboratories for ceramic and road material investigations.

The organization of the branch has been increased from year to year in an effort to meet the constantly increasing demand for its work, although the problems the branch is called upon to investigate appear to be increasing at a much greater rate than the available staff to undertake them.

The total number of employees at the end of March, 1930, was 188, of whom 46 were temporary; and included 62 administrative officers, engineers, and chemists; 13 technical clerks and draughtsmen; 24 clerks and stenographers; 19 laboratory assistants in several grades, and 70 mechanics, labourers, and messengers.

The Director devoted the major part of his time to departmental administrative duties, in addition to which he attended the regular meetings of the Dominion Fuel Board, and acted as chairman of several sub-committees of this board. He attended, as a member, several meetings of the Advisory Committee on Mining Regulations, and meetings of several Associate Committees of the National Research Council, as well as numerous meetings of the Government Advisory Committee on the Civil Service Superannuation Act.

In May he attended the second annual meeting of the Nova Scotia Provincial Advisory Board on Fuel Investigations.

Early in October he attended a conference of Dominion and Provincial officials with representatives of the coal mining industry of British Columbia, at which it was arranged that the Mines Branch should undertake a series of large-scale experiments on the burning of British Columbia coals in the powdered form. At Edmonton, in the province of Alberta, arrangements were made for the formation of a joint committee representing the Mines Branch and the Alberta Research Council to advise on the distribution for action of Alberta coal investigation problems. Visits were also paid to coal fields on Vancouver island and in the Crowsnest Pass districts of British Columbia and Alberta.

He attended the annual western meeting of the Canadian Institute of Mining and Metallurgy in Edmonton in October of 1929, and the annual meeting of the Institute in Toronto in March of 1930.

The outstanding activities of the Branch during the year are briefly outlined under its several divisions as follows:

MINERAL RESOURCES DIVISION

In submitting his review of the year's work, A. W. G. Wilson, Chief of the Division, stresses the fact that a very important feature of the work of the technical officers of this division is the dissemination of information through correspondence and personal conference.

Each technical officer is a specialist on certain selected minerals, their commercial products, and industrial applications. He devotes a large part of his office time to dealing with requests for information, and to acting in a consulting capacity to engineers, capitalists, prospectors, and others who call at the offices of the Mines Branch in Ottawa for advice and assistance. It is believed that this service is contributing greatly toward the development of new industries in Canada and to the improving of operating conditions, though it very seriously interferes with the completion of reports and with the early publication of the results of the more systematic investigations which appear from time to time as monographs or bulletins.

Mr. Wilson was nominated, in May of this year, as one of the representatives of the Dominion Government on a committee, under the chairmanship of Mr. Charles Camsell, appointed to investigate conditions of natural gas production and wastage in Turner valley, Alberta. Meetings were held in western Canada in May, in June, and in September, and a final meeting in Ottawa in January. Work on this committee, including the organization of its investigations and the preparation of its final reports, occupied a large part of Mr. Wilson's time during the year. The committee's investigations included an exhaustive report on the "Economic Possibilities of the Production of Chemical Products from Waste Natural Gas in the Turner Valley, Alberta", which was prepared by Industrial Processes Development, Limited, and a report on "Clay and Shale Resources of Turner Valley and Nearby Districts", by Dr. W. G. Worcester, of the University of Saskatchewan, through the Ceramics Division of the Mines Branch.

H. S. Spence completed the field work in connexion with his study of the mica industry during the early part of the year, when he visited mica mines and mills, and mica trimming establishments in the United States. His report on mica was issued early in March, 1930. The field season was devoted largely to completing the examination of feldspar deposits and mines in Ontario and Quebec. Feldspar mines and mills in the United States were also visited to gather data for a report on this mineral and on the producing and consuming industries. Examinations were made in Ontario and Quebec; Maine, New Hampshire, and New York states. The field work is completed, with the exception of some minor details, and the revised monograph is well under way. Concurrently with his work on feldspar, Mr. Spence studied the occurrences of rare-earth and radioactive minerals in Canada, to ascertain whether these minerals occur in commercial quantities. The most important occurrence studied is that of a radium-bearing uraninite near Wilberforce, Ontario. This deposit forms the subject of a special article which will be published in "Investigations of Mineral Resources, 1929."

L. H. Cole completed the manuscripts of his revised reports on gypsum and on salt, and both volumes are in process of publication. Through the courtesy of the New Brunswick Gas and Oilfields, Limited, Mr. Cole had the opportunity of sampling in detail a core obtained from a salt deposit at Gautreau, N.B. This core penetrated 980 feet of rock salt; it was divided into suitable sections for sampling, and the samples were examined in the chemical laboratories for bromine, iodine, and potash. Mr. Cole devoted most of the field season to a study of deposits of anhydrite in Canada. The field work, which is now com-

pleted, included visits to localities in Ontario, Nova Scotia, and New Brunswick. At the close of the season a trip was made to United States points to ascertain what progress had been made in the utilization of this mineral. On the conclusion of the field work a number of laboratory studies were planned, and this work is still in progress.

S. C. Ells devoted most of the field season to the development of a new quarry site for the production of bituminous sands. This site is located on the Clearwater reserve, nearly opposite the present end of steel of the Alberta Great Waterways railway. About 6,000 tons of sands were exposed by removing the overburden, docks were built, and loading towers and cable were installed. The Research Council of Alberta has erected a separation plant, designed to use Dr. K. A. Clark's process of separating bitumens from sand, beside the quarry site, and it is proposed to operate this plant during the summer of 1930. Late in the year Mr. Ells visited asphalt mixing plants at several points in Texas, preparatory to undertaking the construction of a mixing machine at Edmonton during the winter. This new machine is now nearly complete and it is planned to carry on some experimental work with the machine during the season of 1930.

M. F. Goudge continued his work on the systematic survey of the limestone resources of Canada. The general areal survey of important occurrences in Canada has been completed, except for some minor detailed examinations that may be required. Studies of the technology of limestone quarrying, lime burning, and of the industrial uses of limes and limestones are now in progress. Preliminary reports dealing with the limestone resources of each province, except British Columbia, have been published during the progress of the investigation; a report on the lime and limestone industries in British Columbia is in course of preparation.

A. H. A. Robinson was engaged primarily upon the compilation of a report on lode mining for gold ores in Canada. He also has reported on current progress in the mining of ores of base metals in central and eastern Canada. A good deal of Mr. Robinson's time has been devoted to the preparation of reviews of the Canadian Mineral Industry for the technical press.

V. L. Eardley-Wilmot was engaged in the compilation of a report on current progress in the mining of silver-bearing ores in Canada. About four months were spent in visits to mines throughout British Columbia. A considerable part of Mr. Eardley-Wilmot's time in the office has been devoted to work in connexion with investigations of abrasives and the abrasive industry, including the preparation of an annual review for Mineral Industry.

Arthur Buisson, mineral technologist in charge of the Records Section of this division, spent about two months visiting the principal mining centres in northern Ontario, western Quebec, northern Manitoba, and southern British Columbia. This season's work was in continuation of a practice initiated some years ago to procure for the records first-hand information about current developments and local conditions in the various mining districts of the country. Mr. Buisson has prepared for distribution to the press a number of short articles based on this field work.

C. H. Freeman continued his general work of checking the production of sands and gravels for various purposes. Most of his time for field work was spent on the investigation of moulding sand occurrences in Quebec, south of St. Lawrence river, and in Ontario, west of Toronto. About one hundred and twenty-six large-scale samples of sands suitable for use as moulding sands were collected. These samples are now being studied in the laboratories.

E. H. Wait was employed in studying current conditions in the mining industry in the provinces of New Brunswick and Nova Scotia.

John Casey, statistician attached to this division, conducted the third survey of fuels for domestic heating, covering the Maritime Provinces, Quebec.

Ontario, and Manitoba. Information was collected respecting the source of supplies and the quantities consumed of the following sources of heat: coals and cokes, charcoals, briquettes, gases, both natural and artificial, fuel oil, electric energy, and such other fuels as are used for domestic purposes. The survey covered the operations of over 5,600 distributors of domestic-purpose fuels in four hundred and fifty municipalities. Although the survey, as a whole, was conducted by circular letters and correspondence, it was also necessary to follow up written inquiries by personal visits to many distributors.

ORE DRESSING AND METALLURGICAL DIVISION

W. B. Timm, Chief of the Division, reports a 50 per cent increase in the amount of investigative work on ore treatment as compared with the previous year. This large increase in the demand for assistance was due to greater activity in the mining industry and to the confidence of the industry in the usefulness of the work being performed.

Under the direction of W. B. Timm, H. C. Mabey and V. A. Minnes co-operated with the architects of the Department of Public Works on the preparation of plans and specifications for a new building which will contain chemical and physical testing laboratories and provide the very urgently required office space for the staff of the division.

The new pyrometallurgical laboratory building to house the electric smelting furnaces and other equipment required for the operation of the newly organized Iron and Steel Section has been completed and part of the apparatus installed. The preliminary research work on the utilization of low-grade iron ores can now proceed.

CO-OPERATIVE ARRANGEMENTS

The co-operative arrangement entered into with the Base Metal Extraction Company, Limited, a British organization, was continued and further work was done on the treatment of low-grade base metal copper, lead, and zinc ores. The company hope to establish a smelter in eastern Canada for the treatment of such ores. During the year they obtained the Canadian rights on the Waelz process, a method of recovering zinc and lead from smelter residues and from low-grade ores and refractory concentrates. A small test plant was erected in our laboratories and work of a highly important nature was done on the refractory concentrates from the Treadwell-Yukon mine near Sudbury. The results of this work were particularly satisfactory in as much as an economical method for the treatment of the ore was indicated and plans are now being made in anticipation of favourable development at the mine for the erection of a smelter using this process.

The co-operative arrangement with the Cassel Cyanide Company, a branch of the Canadian Industries, Limited, is still existent. The company maintain a research fellow in our laboratories. Advantage is taken of the laboratory equipment to determine the suitability of their various products for the treatment and recovery of metals from Canadian complex ores.

During the year two new co-operative arrangements were made. One with the American Cyanamid Company, Niagara Falls, Ont., under which they placed a flotation research engineer in our laboratories to work, under Mines Branch supervision, on the use of cyanide and special flotation re-agents developed by that company for the selective flotation of Canadian complex ores.

The other new co-operative arrangement was with the Ross-Playfair interests of Montreal, who own the Canadian rights on the Musso sponge iron process for the semi-direct production of steel from iron ores. This Montreal financial group, wishing to try out this process—which may be specially adaptable to Canadian ores—have been granted permission to install in our new

pyrometallurgical laboratory building, at their own expense, a semi-commercial scale unit required to demonstrate the process. The Mines Branch will make available all the facilities of its laboratories and of its metallurgical staff. This investigation of the Musso process will constitute a part of the general Mines Branch investigatory problem of the utilization of Canadian iron ores and the replacement of imported steel scrap for the manufacture of alloy and high-grade steels in Canada. The plant is at present under construction and when in operation, which it is hoped will be by the middle of the summer, will be capable of producing from 4 to 6 tons of sponge iron a day, which will be converted into steels of all grades. These steels will be thoroughly tested by the Mines Branch for quality. The plant at the completion of the demonstration will become the property of the Mines Branch and if the process is successful the investigation will be continued to include iron ores from all parts of Canada.

At the request of Dr. J. Neil Greenwood, Professor of Metallurgy in the University of Melbourne, Melbourne, Australia, Mr. C. B. O'Malley, then recently appointed as lecturer on ore dressing in the university, was granted permission to spend five months, from May to September, in our Ore Dressing Laboratories, where he was enabled to become acquainted with Canadian and American milling practice. Mr. O'Malley at the same time was given an opportunity of studying, and making personal contact with, our Canadian mining industry.

These co-operative arrangements are an evidence of the practical value of the service being rendered the mining industry by the laboratories.

FIELD STUDIES

The policy of allowing the officers to keep in contact with those engaged in the mining industry was continued.

W. B. Timm spent two months in the field securing information on the progress in ore dressing and metallurgical practice and in renewing personal contact. He visited the mining centres of British Columbia and in particular the new developments at Field, where the Base Metal Mining Corporation is operating. He also inspected the new developments of the Sherritt-Gordon and Hudson Bay Mining and Smelting Companies in northern Manitoba.

C. S. Parsons, accompanied by C. B. O'Malley, visited the Coxheath and Stirling mines in Cape Breton, Nova Scotia, and a few of the gold properties. They also made a trip through the mining fields of northern Ontario and Quebec. Mr. Parsons spent one month in Malartic township, Quebec, working on milling problems.

T. W. Hardy visited the iron and steel plants in Ontario and Nova Scotia, securing information regarding certain of their problems in metallurgical practice. He also visited certain steel centres in the United States and discussed with the leading experts in the industry the latest developments in direct reduction of iron ores as applied to the problem of the utilization of the Canadian low-grade iron ores. Mr. Hardy also devoted a large part of his time to assisting the Advisory Tariff Board on matters pertaining to iron and steel products.

R. J. Traill accompanied by W. B. Timm visited the new Tainton electrolytic zinc plant at Kellogg, Idaho, to study the operation of this new process with the object in view of determining its adaptability to Canadian ores and conditions. They also visited the Trail smelter in British Columbia to investigate the new developments of the Consolidated Mining and Smelting Company, particularly in connexion with the recovery of the by-products, such as cadmium and bismuth, from the electrolytic zinc plant. The new process for the recovery of zinc from the lead slags was also studied, and the plans for the production of fertilizer as a means of eliminating the smelter fume problem.

R. A. Rogers, working with L. H. Cole of the Mineral Resources Division, in connexion with a study of the Canadian gypsum and anhydrite industry, visited gypsum plants in West Virginia, Virginia, and Connecticut, U.S.A.

W. B. Timm was appointed to represent the Department of Mines at the Third (Triennial) Empire Mining and Metallurgical Congress being held in South Africa during the months of April and May. He left for England in February to join the Congress.

LABORATORY INVESTIGATIONS

In the Ore Dressing Section for metallic ores, C. S. Parsons in charge, assisted by A. K. Anderson and J. S. Godard, conducted the following investigations:

Gold ore.....	(a) Jackson Manion mine, Woman Lake, Ont.
	(b) British Canadian mine, Mine Centre, Ont.
	(c) McMillan Gold mine, Mongowin tp., Ont.
	(d) Perrier Syndicate, Nelson, B.C.
	(e) Gem Lake mines, Gem lake, east-central Man.
	(f) Sylvanite Mines, Ltd., Kirkland Lake, Ont.
	(g) Evangeline gold mine, Liscomb mill, N.S.
	(h) Belledate-Goudreau mine, Goudreau, Ont.
	(i) St. Anthony mine, Savant Lake, Ont.
	(j) Malartic mine, Fournier tp., Ont.
	(k) Goudreau-Lochalsh district, Ont.
	(l) Granada-Rouyn mine, Rouyn district, Que.
Copper-gold ore.....	(m) Beardmore mine, Jellicoe, Ont.
	(n) Green Stabell mine, Dubuison, Abitibi, Quebec.
Copper-nickel	(b) Central Manitoba mine, Wadhope, Man.
	(a) Engineers Holding Co., Michipicoten, Ont.
Copper ore.....	(a) Falconbridge mine, Sudbury, Ont.
	(a) Patterson copper mines, Boston Creek, Ont.
	(b) Windsor mine, La Sarre, Que.
	(c) Coxheath mine, N.S.
	(d) McGinn claims, Baldwin, Sudbury, Ont.
	(c) Aldermac mine, Rouyn, Que.
Copper-zinc	(a) Sherritt-Gordon mine, Man.
Copper-lead-barytes	(a) Giant mine, Spillamacheen, B.C.
Copper-lead-zinc ore.....	(a) Errington mine, Bradley, Ont.
Lead-zinc ore.....	(a) Towagamac Exploration Co., Geneva, Ont.
	(b) Haslat Duck Lake mine, Schreiber, Ont.
Lead-silver ore.....	(a) Mallard Lake mine, Kirkland Lake, Ont.
Iron ore.....	(a) Kaministiquia, Ont.
	(b) Bristol mine, Que.
	(c) Mine Centre, Ont.
Silver ore.....	(a) Castle-Trethewey mine, Bestel, Ont.
Tin	(a) Snowflake mine, Albert Canyon, B.C.

In the Ore Dressing Section for non-metallics, R. K. Carnochan in charge, assisted by R. A. Rogers, conducted the following investigations on non-metallic minerals:

- Non-metallics—(a) Asbestos, Ville Marie, Que.
 (b) Silica sands, Guigues tp., Que.
 (c) Mica, Gatineau district, Que.
 (d) Radium, Cardiff tp., Haliburton, Ont.
 (e) Gypsum from various Canadian occurrences.

In the Hydrometallurgical and Electrochemical Section, R. J. Traill in charge, assisted by W. R. McClelland and J. D. Johnston, conducted the following investigations:

- (a) Canadian titaniferous magnetites as a source of iron and vanadium.
 (b) Hydrometallurgical and electrochemical processes for the recovery of zinc from Canadian ores, concentrates, and residues.
 (c) Co-operative investigations with the Base Metal Extraction Company in the treatment of complex lead-zinc-copper ores by the Waelz process.

The Pyrometallurgical (iron and steel) Section, T. W. Hardy in charge, undertook some experimental work in connexion with sponge iron investigation. The installation of the Musso sponge iron and semi-direct steel process plant, already referred to under co-operative arrangements, was in progress under the direction of H. A. McLeod and C. E. Parsons, representing the Ross-Playfair interests.

H. C. Mabec, chief chemist in charge of the chemical laboratories of the division, reports that the number of samples for chemical analysis from the various investigations exceeded those of any previous year by over 50 per cent. B. P. Coyne, R. A. Rogers, and H. L. Beer performed the analytical, and L. Lutes the assay, work.

Mr. Mabec actively co-operated with the Base Metal Extraction Company in the investigation of the Waelz process for the recovery of zinc and lead from complex ores.

FUELS AND FUEL TESTING DIVISION

B. F. Haanel, Chief of Division, reports that the investigational and routine work is continuing to increase rapidly. The installation of small-scale experimental equipment is approaching completion; the pulverized fuel boiler installation is completed and tests on British Columbia coals are under way. With the exception of the semi-commercial by-product coke oven, the installation of large-scale equipment, including the pulverized fuel steam boiler just mentioned, the large gas engine, and the wet and dry coal cleaning equipment, is now complete. The installation of the small-scale pressure experimental hydrogenation laboratory has been completed and the preliminary tests have been begun on samples of Canadian coals. The chemical and physical survey of the Phalen seam in Nova Scotia—field work on which was begun in the summer of 1928—is still under way. Peat manufacturing operations at the Alfred peat plant were terminated in the autumn of 1928, but during the summer of 1929 some 1,500 tons of peat humus was harvested and piled at the railway siding, and several hundred tons of peat fuel and peat humus were sold; during the autumn of 1929 the plant was closed indefinitely.

The technical staff of the division was increased by the appointment of T. E. Warren and E. A. Smith as Research Engineers, the former for full time and the latter for the university vacation period only. R. J. Young was appointed Assistant Chemist.

INVESTIGATIONS AND EXAMINATIONS MADE BY THE CHIEF OF THE DIVISION AND TECHNICAL ENGINEERS

In addition to planning and directing the work of the division, Mr. Haanel attended the regular meetings of the Dominion Fuel Board, and the meeting of the Nova Scotia Advisory Board of Fuel Investigation. He held several conferences with officials of the British Empire Steel Corporation at Montreal, in connexion with the experimental work being carried on by that company in co-operation with the division, on low temperature carbonization. Mr. Haanel also attended the conference held with the British Columbia government relating to the investigation of British Columbia coals, and spent considerable time visiting collieries in Crowsnest pass and on Vancouver island. While in the west he attended the annual meeting of the Canadian Institute of Mining and Metallurgy held at Edmonton, Alberta. Mr. Haanel also attended the annual meeting of the American Society of Heating and Ventilating Engineers, held at Philadelphia; and visited the Todd Shipyards Corporation and the Foster Wheeler Corporation, for the purpose of conferring with those concerns on powdered fuel steam-raising installations for marine purposes. A portion of his time was spent, as previously, in connexion with concluding the work being carried on at Alfred, Ontario, in the manufacture of peat.

R. E. Gilmore, Superintendent of the Fuel Research Laboratories, was occupied chiefly with the details pertaining to moving into the new laboratory building and the installation of equipment therein. In addition to his regular supervisory duties, he assisted in planning the work of the division and in the preparation of the annual report "Investigations of Fuels and Fuel Testing." He made a special report on the outcrop sample of Blacksmith Rapids lignite submitted by the Ontario Department of Mines, and during the year visited collieries in Nova Scotia, Alberta, and British Columbia. He was occupied, also, with the work of both the Canadian and American coal classification committees, and prepared a paper on the status of coal classification in Canada.

E. S. Malloch and C. E. Baltzer, in addition to their routine duties, supervised the setting up and preliminary operation of the pulverized fuel-fired boiler, prior to making a start on the investigation into the amenability of Canadian coals to pulverization and firing in that state under a steam boiler. Ten tests in all were made in this investigation, three of a routine nature and one on each of seven different coals from British Columbia. Mr. Baltzer witnessed a series of burning tests on four different fuels in the boiler plant of Westminster Hospital, London, Ontario, for the purpose of determining the most suitable fuel for use in that institution. This investigation was made at the request of the Department of Pensions and National Health.

R. A. Strong and E. J. Burrough of the Carbonization Section, inspected a series of tests on a 20-ton lot of Nova Scotia coal at the experimental plant of the Illingworth (low temperature) Carbonization Company at Pontypridd, South Wales. Mr. Strong made inspections of gas plants at Halifax and Quebec city in connexion with their applications to come under the provisions of the Domestic Fuel Act, and, assisted by Mr. Burrough, continued the small laboratory scale high and low temperature carbonization survey of Canadian coals. Mr. Strong, also, was a member of the delegation investigating the problems relating to the mining and utilization of coal in the western provinces.

A. A. Swinnerton and G. P. Connell continued laboratory work pertaining to oil-shales and bituminous sands. Mr. Swinnerton conducted further oil-shale field work in Pictou area, Nova Scotia, and visited oil-shale retorting operations at Rosevale, New Brunswick, and New Glasgow, Nova Scotia. He also visited the experimental oil-shale plant of the U.S. Bureau of Mines at Rulison, Colorado, and made a departmental report on the experiments and operations there. Mr. Connell's services were utilized in connexion with bituminous sands paving operations by the Canadian National railways at Jasper park, Alberta. Messrs. Swinnerton and Connell also assisted in the analyses survey of Canadian crude petroleum oils.

P. V. Rosewarne and H. M. Chantler did the field and laboratory work of the Oils and Natural Gas Section. Mr. Rosewarne, assisted by R. J. Offord, conducted an analyses survey for hydrocarbon and helium content of natural gases from different parts of the country, with special reference to Turner Valley field in Alberta. In this work the proffered laboratory facilities of the Institute of Technology in Calgary were used for setting up and operating a special gas analysis apparatus, and the hearty co-operation of the officials of the Institute, of the Dominion Department of the Interior (Office of Supervisory Mining Engineer) in Calgary, as well as the operators in Turner Valley field is herewith acknowledged. A co-operative arrangement was entered into by the Mines Branch with the Alberta Government "Committee on Inquiry into Fuel and Lubricating Oils," of which Major H. G. L. Strange is chairman, under which an analysis survey of motor fuels used in Alberta was initiated under the supervision of Mr. Rosewarne. Check work was also undertaken for this committee on lubricating oil analysis and Mr. Rosewarne's services as a consultant placed at their disposal. Mr. Chantler accompanied Mr. Rosewarne on a visit to oil refineries and producing fields in western Ontario and studied

the analyses of crude oils as part of a crude oil survey. Mr. Rosewarne also visited crude oil producing and refining operations in Oklahoma, including the Experiment Station of the U.S. Bureau of Mines at Bartlesville, and the Bureau's experimental helium plant at Amarillo, Texas.

J. H. H. Nicolls and C. B. Mohr were mostly occupied in the analytical work of the Solid Fuels Analyses Section; the former examined the indexing and compiling of the results pertaining to the Canadian coals and other solid fuels, and the latter took immediate charge of the proximate analyses and calorific value work according to standard laboratory procedure. Mr. Nicolls, with the assistance of E. Swartzman, investigated certain methods of analysis requiring revision, conducted further coking index experiments, and continued his coal classification studies with special reference to Canadian coals.

T. E. Warren and E. A. Smith conducted special laboratory investigations on hydrogenation and low temperature carbonization, respectively. Mr. Warren was specially occupied with the setting up and preliminary operation of a high pressure bomb and accessory equipment, and Mr. Smith conducted a series of test runs on Canadian coals and peat according to different standard low temperature carbonization methods, with the development of a non-expensive standard laboratory method in view.

Chemical Laboratory Work

The routine chemical laboratory work was conducted in two sections, namely, the Solid Fuels Analyses Section and the Oils and Natural Gas Section.

The services of R. J. Young as Assistant Chemist were concerned mainly with gas analysis work pertaining to tests in the pulverized fuel fired experimental boiler, and to carbonization and retorting tests on coals and oil-shales.

During the year a total of 1,165 samples of solid, liquid, and gaseous fuels were examined. Of these 769, that is, approximately 68 per cent, pertained to investigations conducted within the division, whereas the remaining 32 per cent originated outside the division. Of the total samples submitted from outside, 43 were from other divisions of the Mines Branch, 102 from the Geological Survey, 88 from the Department of Pensions and National Health, 69 from provincial government departments, and 94 from public institutions, commercial firms, and private individuals. The following is a classification of the various kinds of fuels analysed:

Solid fuels; total samples examined		754
Coals (various kinds)	681	
Cokes and chars	41	
Peat and miscellaneous	32	
Liquid fuels; total samples examined		200
Gasoline	96	
Lubricating oils	27	
Crude oils	64	
Other petroleum, oils, and miscellaneous	13	
Gases from coals, oil-shales, etc.		91
Oil-shales		36
Bituminous sands		42
Natural gas		42
Total		1,165

CERAMICS AND ROAD MATERIALS DIVISION

Howells Fr chette, Chief of the Division, reports continued increase in calls of clay products manufacturers for technical assistance in the utilization of Canadian clays and in the various steps of processing.

During the year increased kiln capacity was required. This was furnished by the building of a second down-draught gas kiln capable of developing a temperature of about 1,500 degrees C.

The usual annual report on "Investigations in Ceramics and Road Materials" was not issued for the year 1928. The material that would have appeared in this will be incorporated into a report covering the two years 1928 and 1929. The report in manuscript on the road materials investigation of Prince Edward Island for 1928 was transmitted as soon as it was completed to the Minister of Public Works of Prince Edward Island, and other information was made available to interested persons, so that very little inconvenience has been occasioned by delaying the printing of the report on the work of the year.

CERAMICS

As was mentioned in last year's report, the investigation on the treatment of tender-drying clays of the Prairie Provinces to overcome drying defects was extended to include clays from other parts of the Dominion. Following the very successful results obtained in correcting drying defects in the manufacture of brick at a plant in Alberta, a request for assistance in relieving serious troubles experienced in the drying of structural hollow tile was received from the Montreal Terra Cotta Company. Although the general cause of the trouble at this plant was found to be similar to that at the Alberta plant, the character of the two clays differed in several respects and local factors had to be considered, therefore this case was attacked as a separate problem. Chemical treatment of the clay was again found to be effective and well within the limits of economic cost. Following laboratory investigation by J. G. Phillips, plant trials, using sodium chloride as a coagulant, were run, and gave satisfactory results. A definite treatment was formulated and was at once adopted as regular plant procedure. This resulted in shortening the drying time, greatly reducing drying breakage, increasing the production capacity of the plant, and improving the quality of the ware.

During the summer further work was done by Mr. Phillips on the pre-heating of clays to improve their drying properties. Several trial runs were made with a small rotary kiln at a brick plant in Alberta to learn the effect of bulk treatment.

Continued work by L. P. Collin is in progress on the compounding of ceramic bodies for electrical heating devices. In the early part of this investigation caustic magnesia was used in the mixtures and was found to reduce the plasticity and the green-bond strength of the ball clay to a marked degree and to cause the firing shrinkage of the bodies to be unduly high. The substitution of dead-burned magnesite for the caustic magnesia is now being tried out. Improvement has been noted in the working properties of the mixtures. Burning trials are to be made in the near future to determine whether the shrinkage will be decreased, and the effects of the substitution on the physical properties of the finished product.

A large part of Mr. Collin's time has been devoted to the investigation for the production of grey brick. Experiments were made in the laboratory to find a suitable grey slip which could be sprayed on the faces of the brick. Satisfactory results were obtained, but tests made at the Citadel Brick Company's plant at Boischatel, Que., gave results quite different from those obtained in the laboratory. After trials with many mixture adjustments good grey colours were obtained, but the degree of vitrification was not thoroughly satisfactory and further adjustment of fluxes will be necessary.

Mr. Collin conducted an investigation on the bonding strength of ball clays in the green state. It had been found that the tentative standard test for transverse strength as adopted by the American Ceramic Society was unsuitable for the western Canada ball clays. Transverse tests were made on nineteen Canadian, four English, and seven United States ball clays in accordance with

the tentative standard method and also with a different method to demonstrate the unsuitability of the tentative method and to show the more correct results obtainable by this second method.

At the beginning of a general investigation of the fireclay resources and refractories industry of Canada, J. F. McMahon spent two and one-half months in Nova Scotia and New Brunswick, gathering samples and data. Incidental to this work in the Maritime Provinces he sampled a number of clay deposits and studied local conditions with a view to reporting upon the opportunities offered for the establishment of a floor and roofing-tile industry close to tide-water. The testing of these samples has revealed some very satisfactory raw material.

At the request of the Turner Valley Waste Gas Committee, an investigation was undertaken of the clay resources of Turner valley and adjacent territory to determine the character of the clays that might constitute sources of supply of raw material for possible clay-working industries that could utilize the available natural gas for fuel. Professor W. G. Worcester, of the University of Saskatchewan, was engaged to carry out this investigation and has submitted a report to the committee. Eighty-two samples were collected and were later subjected to standard tests.

During the year one hundred and nine samples of clays and shales were tested. Tests were made on three samples of bentonitic material, five samples of mineral pigment, two samples of volcanic ash, one sample of pyrophyllite, and one sample of sericite. Determinations of strength were made on three samples of brick and tile.

The research on the manufacture of high-grade refractory brick from Canadian magnesite continued throughout the year. This investigation is being made in co-operation with the National Research Council of Canada.

ROAD MATERIALS

R. H. Picher made a survey of the road gravel resources and collected samples for testing in the area lying between Waltham and Quebec to the north of Ottawa and St. Lawrence rivers, and also in a portion of the Eastern Townships of Quebec.

In addition to the testing of one hundred and forty-seven samples gathered in the field, seven samples were tested for the Highway Department of Nova Scotia and eight from other sources.

Several samples of gumbo soils were obtained from Alberta and were subjected to a series of experiments by Mr. Phillips to learn whether chemical treatment with coagulants would so alter their characteristics as to materially improve them as road building materials. In many sections in the Prairie Provinces where stone and gravel cannot be obtained locally, the roads made on the gumbo soils are almost impassable in wet weather due to the stickiness of this material and the rutting due to its inability to carry loads when wet.

Treatment with lime in the laboratory was found to improve it greatly but whether the improvement is sufficient to warrant the cost can be determined only by the treatment of trial stretches on travelled roads. A decision has not yet been reached whether this will be undertaken.

CHEMISTRY DIVISION

F. G. Wait, Chief of Division, reports:

From April 1, 1929, to March 31, 1930, fifteen hundred and sixty-five specimens have been reported on.

The work of the different members of the chemical staff has been as follows:

H. A. Leverin investigated a new process for manufacturing peat fuel. He collected data regarding the development of the sponge iron process in Europe, through correspondence with investigators and translation of publications. He made a number of analyses of minerals—including a number of brines and rock salts.

E. A. Thompson made complete analyses of thirty samples of feldspar. Several others were analysed for potash content only. He also made complete analyses of two samples of water and of several samples of limestones, of dolomites, of clay, and of diatomite, as well as of several samples of miscellaneous materials. He also made microscopic examinations of several minerals and made a large number of mineral identifications.

A. Sadler had charge of the furnace assays. He tested seven samples for radioactivity, and examined six samples of earth as to their suitability for use as fullers' earth. He made complete analysis of twenty-seven sands, fourteen clays, and partial analysis of a large number of specimens.

J. Moran's principal work has been the analysis of the air sampled in the coal mines of western Canada. One hundred and eighty-six such samples have been analysed and reported. He designed and constructed a special apparatus for the analysis of natural gas samples and also one for the determination of small quantities of carbon monoxide. He has also carried out experiments to determine the efficiency of new re-agents for the estimation of carbon monoxide. An investigation was made into the nature of the electric charge on various insecticides and field experiments bearing on the same carried out in conjunction with the Department of Agriculture. He also made partial analyses of several limestones.

C. L. O'Brian analysed a large number of limestones and dolomites collected by officers of the Mineral Resources Division and of the Geological Survey.

DOMINION OF CANADA ASSAY OFFICE, VANCOUVER, B.C.

G. N. Ford, Manager of the Dominion of Canada Assay Office, reports:

The report of the Assay Office for the calendar year ending December 31, 1929, shows the net value of gold bullion deposited during the year amounted to \$1,032,128.51, as compared with \$1,673,926.65 during the previous year.

The value of gold bullion deposited from British Columbia sources was \$853,409.12, being a decrease of \$65,308.94.

Gold bullion from Yukon territory amounted to \$120,825.77, a decrease of \$572,939.63 from the previous year. This decrease is due to gold from Yukon territory, which formerly was marketed at this office, being shipped during the season just ended to the United States in order to benefit by the premium on United States funds, which prevailed practically throughout the year.

Deposits at this office from all other sources totalled in value \$57,893.62, a decrease over the previous year of \$3,549.57.

The purchase and disposal of the gold bullion deposits during the year 1929 required a total of 1,348 meltings and 1,348 assays, quadruplicate assays being made in each instance. This includes the melting into large bars of the smaller deposits after purchase and of the assaying of same before shipment.

The aggregate weight of all deposits before melting was 69,985.84 troy ounces, and after melting 61,279.85 troy ounces, included in which were ninety deposits containing a large proportion of lead requiring to be cupelled in a large muffle furnace. The total weight of these deposits before melting was 28,523.59 troy ounces and after melting and cupelling 21,645.40 troy ounces, showing a loss by melting and cupellation of 24.114 per cent. The average loss in melting all other bullion deposited, viz., 41,462.25 troy ounces before melting and 39,634.45 troy ounces after melting, was 4.408 per cent.

The loss in weight by assaying (base and parted silver) was 30.28 troy ounces, making the weight of bullion after melting and assaying 61,240.57 troy ounces, the average fineness of same being $814\frac{3}{4}$ gold and 113 silver.

The net value of the gold and silver contained in deposits was \$1,032,128.51, and was received from the following sources:

Bars, nuggets, dust, and amalgam	Number of deposits	Before melting and assaying (troy ounces)	After melting and assaying (troy ounces)	Net value
British Columbia.....	429	54,844.08	46,932.21	\$ 853,409 12
Yukon territory.....	154	7,970.97	7,877.84	120,825 77
Alaska.....	1	31.71	31.36	572 70
Washington.....				
Alberta.....	2	7.09	6.11	112 46
California.....	1	162.59	162.57	2,723 52
Dental and jewellery scrap.....	705	6,969.40	6,239.48	54,484 94
	1,292	69,985.84	61,249.57	\$1,032,128 51

DRAUGHTING DIVISION

H. E. Baine, Chief Draughtsman, reports:

Maps Published During the Fiscal Year Ending March 31, 1930

Map No. 703. Principal Amber Mica Mines and Occurrences in the Province of Quebec; scale, 3.95 miles to 1 inch.

Map No. 704. Principal Amber Mica Mines and Occurrences in the Province of Ontario; scale, 3.95 miles to 1 inch.

Map No. 715. Gypsum Occurrences in Canada.

Map No. 717. Saline Springs and Salt Areas in Canada.

Map No. 718. Michigan-Ontario Salt Basin.

Map No. 709. Asbestos Region, Quebec (not published).

Two hundred and three page maps, drawings, charts, and flow-sheets were prepared during the year.

Five hundred and twenty-two negatives, black and white and blue prints were made from the blue-print machine.

Twelve hundred and thirty-nine negatives, and black and white prints were made from the photostat machine.

Two hundred and twenty-five halftone blocks and zinc cuts were sent out, received, and filed during the year.

DISTRIBUTION OF PUBLICATIONS

During the fiscal year ending March 31, 1930, the distribution of Mines Branch reports, bulletins, memorandum series, press bulletins, maps, list of mine operators, etc., amounted to 40,392 copies.

LIBRARY

Mrs. O. P. R. Ogilvie, Librarian, reports:

Accessions to the Library, 1929

Books (by purchase)	314
Books (by gift)	116
Books (by transfer from other Government libraries)	109
Books (complete unbound volumes)	293
Books added to the circulating division of Library	819
Canadian Government documents (by exchange and gift)	1,840
British and Foreign Government documents (by exchange and gift)	1,105
Scientific societies bulletins, proceedings, and transactions (by exchange and gift)	1,344
Trades catalogues (by gift)	271

Thirty-seven bound volumes and three hundred and ninety-eight unbound volumes and pamphlets were received as a gift from the Library of the late J. S. Hudson.

Nine hundred and sixteen books were bound for the Library during the year. Additional shelving was installed and for the first time

Additional shelving was installed and further re-adjustments were made to accommodate the annual increase, which has this year exceeded the increase of any previous year.

EXPLOSIVES DIVISION

Lt.-Col. G. Ogilvie, Chief Inspector of Explosives

Staff

The division suffered the loss, by death, of Mr. Joseph G. S. Hudson, who had served as Inspector of Explosives since its inception in 1919. Keenly interested in its operation, the value of his work was enhanced by a personality which, in the task of introducing new regulations, did much to enlist the goodwill and co-operation of those affected thereby.

He was succeeded by Mr. M. C. Fletcher, formerly chemist in the division.

Factories

The Mexco Company's factory at Parry Sound was finally closed at the end of 1929, and the small firework factory of Dominico Ruffo at Cornwall, Ontario, did not resume operations.

The production of explosives for the year 1929 showed an increase of about 12½ per cent.

No serious accident occurred in licensed factories during the year ending March 31, 1930. An employee of the Macdonald Metal Products Company caused the explosion of a small quantity of dried composition on a stamp plate, as used in transferring drops of composition on to a sheet in the manufacture of caps for toy pistols, which he was improperly cleaning with a nail. The burns he received entailed seven days' absence from work.

The spontaneous ignition of carbonaceous material in a soda dry house in the factory at James Island, B.C., resulted in damage to the building, but only in very minor burns to an employee.

A small fire, quickly extinguished, in a building used for the manufacture of railway fusees at Brownsburg, the spontaneous combustion of an oily rag in an empty can in a 'dope' house (for non-explosive ingredients), and the ignition of woodwork in a nitric acid house, caused by the passage of nitro cake down a chute, did not cause damage of any consequence.

Magazines

There were 288 magazines under licence on March 31, 1930, and 231 licences for temporary magazines had been issued during the year—in all, an increase of 47 over the number for the previous year. Thefts of explosives, aggregating 289 pounds of high explosives and 1,000 detonators, were reported from five magazines that had been forcibly entered. There is also to record an unsuccessful attempt on a magazine, and the recovery of eleven pounds of dynamite stolen from another.

Explosives Condemned

High explosives, 1,906 pounds, black blasting powder, 150 pounds, distributed over twenty-one magazines or unlicensed premises, were condemned on inspection and destroyed.

In addition, there were several instances of the finding of small quantities of explosives cached in the bush, or left and forgotten elsewhere, which were destroyed. In some cases, these were found by the Royal Canadian Mounted Police, in others, reported to the police by the finders, and it is a hopeful sign that, in a few instances, the finders were children who wisely did not themselves tamper with the explosives.

Prosecutions

Of the two undecided cases referred to in the last report, one, relating to the unlawful keeping of explosives in unlicensed premises, resulted in a conviction, a fine being imposed; and the other, relating to the keeping of explosives found in a disused quarry, was dismissed on appeal, responsibility not being established as against the defendant. Proceedings were taken in seven other cases, and convictions obtained.

In one case the offence lay in having a larger quantity of explosives in a magazine than was prescribed by the licence. The other six cases referred to violations of the regulations by work parties or private users of explosives. They were all instances of negligent keeping of explosives, under conditions such as to invite accidents or to facilitate pilfering.

Importations

Six hundred and three permits and forty-three special permits, for the importation of explosives, were issued during the year. No difficulty is experienced in regard to the importations of explosives other than fireworks. The great variety of fireworks on the market necessitates careful checking of those varieties it is proposed to import, to ensure that they have been authorized, but, after this precaution, it is seldom that any from the United States or Europe have to be refused admission at port of entry. In the case of Chinese fireworks, the rejections, which in the past have been very considerable, show a marked reduction, amounting during the year to about 2 per cent.

Authorization of Explosives

Samples of twenty-three explosives were examined and authorized. Eighty-five varieties of fireworks were also submitted, of which sixty were authorized.

Accidents

A summary of accidents with explosives, which occurred during the year 1929, is given in the annual report for the division. Accidents in the use of explosives, and from other miscellaneous causes, such as playing with explosives, accounted for the death of sixty-five persons and injury to two hundred and one others—a slight increase over the figures for the previous year, respectively sixty-four and one hundred and ninety-two. The consumption of explosives had increased in a greater degree. The accidents arising from playing with detonators and other explosives accounted for two deaths and fifty-one persons injured, as compared with seven deaths and eighty injured in the preceding year—an improvement which gives ground for the hope that the warnings given to children in schools, and the constant activity of the Royal Canadian Mounted Police in checking careless practice in the keeping of explosives, are materially helping towards the prevention of this class of accident.

General

The inspections of stores and other places where small quantities of explosives are kept, have not shown other than minor irregularities, readily rectified in the case of regular dealers. Instances of more serious irregularities and general carelessness are met with in regard to explosives kept by private users, or for use in small contract work. Some of these resulted in prosecutions, as already indicated. Inspectors of the division made 679 inspections of unlicensed premises, and about 2,400 were made by members of the Royal Canadian Mounted Police whose watchfulness, in all parts of the Dominion, brings a steady insistence on the observance of good and lawful practice in the keeping of explosives.

EDITORIAL DIVISION

F. Nicolas, *Editor-in-Chief*

During the fiscal year thirty-nine separate English publications were issued by the department, consisting of annual reports, memoirs, bulletins, and pamphlets; there were issued also eighteen lists of mine operators and mines. Eight reports were published in French.

At the end of the fiscal year there were in the hands of the King's Printer eleven English reports of the Geological Survey, six English reports and two French translations of the National Museum, twelve English reports and two French translations of the Mines Branch, and one English report of the Explosives Division. Several reports, also, were being edited preparatory to dispatch for printing, and several French translations are now nearly ready for the printer.

The following list includes the publications issued by the various branches of the department during the fiscal year, under the supervision of the Editor-in-Chief, and the French publications distributed¹ during that period:

DEPARTMENT OF MINES

Report
No.*English Publications*

- 2217 *Report of the Department of Mines for the Fiscal Year ending March 31, 1929*: 58 pages; 1 figure; 3,000 copies; published February 1, 1930.

French Translations

- 2203 *Rapport du Ministère des Mines pour l'année financière se terminant au 31 mars, 1928*: 67 pages; 1 plate; 1 figure; 1,250 copies; published November 12, 1929.
2231 *Rapport du Ministère des Mines pour l'année financière se terminant au 31 mars, 1929*: 62 pages; 1 figure; 1,250 copies; published March 31, 1930.

GEOLOGICAL SURVEY

English Publications

- Information for Officers of the Geological Survey and National Museum*: 34 pages; 3 figures; 500 copies; published April 4, 1929.
2176 Memoir 155. *Horton-Windsor District, N.S.*—by W. A. Bell: 268 pages; 36 plates; 14 figures; 1 map; 2,500 copies; published November 9, 1929.
2181 Memoir 156. *Gold Fields of Nova Scotia*—by Wyatt Malcolm: 253 pages; 40 plates; 10 figures; 4 maps; 1,500 copies; published September 27, 1929.
2191 Memoir 157. *Preliminary Report on Woman and Ridout Map-areas, Sudbury District, Ont.*—by R. C. Emmons and Ellis Thomson: 30 pages; 2 maps; 2,500 copies; published August 16, 1929.
2193 Memoir 158. *Britannia Beach Map-area, B.C.*—by H. T. James: 139 pages; 4 plates; 12 figures; 2 maps; 2,500 copies; published October 8, 1929.
2197 Memoir 159. *Bear River and Stewart Map-areas, Cassiar District, B.C.*—by George Hanson: 84 pages; 5 plates; 14 figures; 2 maps; 2,500 copies; published October 29, 1929.
2202 *Summary Report of the Geological Survey, Department of Mines, for the Calendar Year 1928, Part A*: 210 pages; 4 plates; 11 figures; 4 maps; 3,000 copies; published October 10, 1929.
2206 *Summary Report of the Geological Survey, Department of Mines, for the Calendar Year 1928, Part B*: 131 pages; 5 plates; 2 figures; 1 map; 3,000 copies; published October 7, 1929.

French Translations

- 2188 *Série de la Géologie appliquée n° 1. Géologie et Minéraux industriels du Canada*—by G. A. Young: 276 pages; 38 plates; 1,450 copies; published February 11, 1930.

¹ The distribution of English publications was made as usual by the branches that prepared them.

- 2201 *Rapport sommaire de la Commission géologique, Ministère des Mines, pour l'année civile 1927, Partie C* (extraits): 54 pages; 2 maps; 1,250 copies; published November 30, 1929.

NATIONAL MUSEUM OF CANADA

English Publications

- Bulletin 47. Anthropological Series 9. *Some Shell Heaps in Nova Scotia*—by H. I. Smith and W. J. Wintemberg: 192 pages; 32 plates; 1 figure; 1,000 copies; published October 24, 1929.
- Bulletin 53. Biological Series 15. *A Faunal Investigation of Southern Baffin Island*—by J. D. Soper: 143 pages; 7 plates; 1 figure; 1,000 copies; published April 24, 1929.
- Bulletin 54. Geological Series 49. *Contributions to Canadian Palæontology*—by F. H. McLearn and C. M. Sternberg: 80 pages; 22 plates; 1,000 copies; published September 5, 1929.
- Bulletin 55. Biological Series 16. *A Generic Revision of North American Agrotid Moths*—by J. H. McDunnough: 78 pages; 53 figures; 1,000 copies; published April 23, 1929.
- Bulletin 56. *Annual Report for 1927*: 107 pages; 2 plates; 3,500 copies; published October 11, 1929.
- Separate: *Notes on the Beothuk Indians of Newfoundland*—by D. Jenness: 3 pages; 2 plates; 100 copies; published November 4, 1929.
- Separate: *Preliminary Report on Field Work in 1927*—by W. J. Wintemberg: 2 pages; 100 copies; published October 22, 1929.
- Separate: *Kitchen-Middens of the Pacific Coast of Canada*—by H. I. Smith: 5 pages; 100 copies; published November 4, 1929.
- Separate: *Materia Medica of the Bella Coola and Neighbouring Tribes of British Columbia*—by H. I. Smith: 22 pages; 100 copies; published November 4, 1929.
- Separate: *Birds and Mammals of the Mount Logan Expedition, 1925*—by H. M. Laing, R. M. Anderson, and P. A. Taverner: 39 pages; 100 copies; published November 8, 1929.
- Bulletin 57. *A Transverse Polyconic Projection for General Maps of Canada*—by C. O. Senecal: 17 pages; 3 figures; 2,000 copies; published August 17, 1929.
- Bulletin 58. Geological Series 50. *Mesozoic Palæontology of Blairmore Region, Alberta*—by S. S. Buckman, E. W. Berry, and F. H. McLearn: 144 pages; 19 plates; 1 figure; 1,000 copies; published October 28, 1929.
- Bulletin 59. Anthropological Series 13. *Anthropometry of the Cree and Saulteaux Indians in Northeastern Manitoba*—by J. C. Boileau Grant: 73 pages; 5 plates; 4 figures; 1,000 copies; published October 25, 1929.
- Bulletin 62. *Annual Report for 1928*: 37 pages; 1 figure; 2,500 copies; published December 26, 1929.
- Separate: *A study of the Canadian Races of Rock Ptarmigan (*Lagopus rupestris*)*—by P. A. Taverner: 10 pages; 300 copies; published December 28, 1929.

French Translations

- Bulletin 50. *Rapport annuel 1926* (extraits): 76 pages; 10 plates; 1 figure; 1,250 copies; published March 21, 1930.

MINES BRANCH

English Publications

- Report No.
695 *Investigations in Ore Dressing and Metallurgy, 1927*: 186 pages; 6 plates; 1 figure; 4,000 copies; published June 26, 1929.
- 696 *Investigations of Fuels and Fuel Testing, 1927*: 107 pages; 10 plates; 9 figures; 4,000 copies, published November 26, 1929.
- Separate: Part I—*Solid Fuels*: 70 pages; 10 plates; 3 figures; 500 copies; published September 18, 1929.
- Separate: Part II—*Liquid Fuels*: 37 pages; 6 figures; 500 copies; published September 18, 1929.
- 697 *Investigations in Ceramics and Road Materials, 1927*: 80 pages; 3,500 copies; published October 2, 1929.
- Separate: *The Testing of Non-Bituminous Road Materials*—by R. H. Picher: 13 pages; 1,000 copies; published November 7, 1929.
- 698 *Industrial Fuel and Power Statistics of Ontario, 1925*—by E. S. Malloch and C. E. Baltzer: 23 pages; 12 figures; 4,000 copies; published April 19, 1929.
- 701 *Mica*—by H. S. Spence: 142 pages; 21 plates; 10 figures; 2 maps; 1 chart; 4,000 copies; published March 3, 1930.

- 705 *Comparative Tests on Various Fuels when Burned in a Domestic Hot-Water Boiler*—by E. S. Malloch and C. E. Baltzer: 92 pages; 5 plates; 6 figures; 6 charts; 4,000 copies; published September 23, 1929.
- Core Drilling Bituminous Sands of Northern Alberta*—by S. C. Ellis. (Advance section of *Investigations of Mineral Resources and the Mining Industry, 1928*): 26 pages; 4 plates; 1 figure; 500 copies; published August 12, 1929.

Lists of Mines and Mine Operators in Canada:

- Coal: 2,000 copies; published April 25, 1929.
- Manufacturers of Clay Products: 1,000 copies; published April 25, 1929.
- Stone Quarry Operators: 1,000 copies; published April 25, 1929.
- Silver: 1,000 copies; published June 29, 1929.
- Graphite: 1,000 copies; published July 9, 1929.
- Sand and Gravel Deposits: 1,500 copies; published July 17, 1929.
- Copper, Copper-Zinc, and Nickel-Copper: 1,000 copies; published August 8, 1929.
- Sand-Lime Brick Plants: 1,000 copies; published August 9, 1929.
- Mica: 1,000 copies; published August 14, 1929.
- Gypsum: 1,000 copies; published August 15, 1929.
- Feldspar: 1,000 copies; published August 15, 1929.
- Magnesium Sulphate (Epsomite), etc.: 1,000 copies; published August 19, 1929.
- Abrasives: 1,000 copies; published August 23, 1929.
- Silver-Lead-Zinc: 1,000 copies; published August 29, 1929.
- Milling Plants: 1,000 copies; published September 7, 1929.
- Metallurgical Works: 1,000 copies; published September 9, 1929.
- Natural Gas and Petroleum Wells: 1,500 copies; published October 11, 1929.
- Gold: 1,000 copies; published November 15, 1929.

DOMINION FUEL BOARD

Report
No.

English Publications

- 8 *Why You Should Insulate Your Home* (Third edition)—by G. D. Mallory: 15 pages; 7 drawings; 25,000 copies; published May 27, 1929.
- 12 *Humidity in House Heating*—by E. S. Martindale: 38 pages; 13 drawings; 26,200 copies; published October 17, 1929.
- Reprint: 50,000 copies; published March 14, 1930.
- 14 *Comparison of the Cost and Convenience of House Heating with Various Fuels*—by E. S. Malloch: 8 pages; 1 figure; 5,000 copies; published September 30, 1929.

French Translations

- 11 *Deuxième rapport des travaux de la Commission fédérale du Combustible, 1923-1928*: 60 pages; 5 plates; 1 figure; 1 map; 5,000 copies; published June 18, 1929.
- 13 *L'humidité dans les maisons chauffées*—by E. S. Martindale: 40 pages; 13 figures; 5,000 copies; published March 12, 1930.

EXPLOSIVES DIVISION

English Publications

- 25 *Annual Report of the Explosives Division for the Calendar Year 1928*: 19 pages; 2,000 copies; published May 8, 1929.

French Translations

- 26 *Rapport annuel de la Division des Explosifs pour l'année civile 1928*: 20 pages; 1,000 copies; published September 26, 1929.

DISTRIBUTION OF FRENCH PUBLICATIONS

The French publications of the Department of Mines, including those of the Geological Survey, the Mines Branch, and the Explosives Division, are distributed by the Editorial Division. During the fiscal year 1929-30, 8,619 copies were distributed in Canada and foreign countries, as follows: 4,274 copies to addresses on the mailing lists, through the Printing Bureau Distribution Office, and 4,345 copies in compliance with written or personal requests, from the office of the Editorial Division. This distribution does not include, however, the publications sent out directly by the Dominion Fuel Board and the Explosives Division to their correspondents.

ACCOUNTING DIVISION

ACCOUNTANT'S STATEMENT

P. R. Marshall

The funds available for the work and expenditure of the Department of Mines for the fiscal year ending March 31, 1930, were:

	Grant	Expenditure	
		Amount	Total
	\$ cts.	\$ cts.	\$ cts.
DEPARTMENT—			
Amount voted by Parliament.....	118,329 00		
Civil Government salaries.....		71,541 61	
Grant to Imperial Institute.....		12,848 00	
Civil Government contingencies.....		11,918 84	
Expenses of the Explosives Division.....		9,607 08	
Grant to Canadian Institute of Mining and Metallurgy.....		3,000 00	
Miscellaneous gratuities.....		570 00	
			109,485 53
Balance unexpended and lapsed.....			8,843 47
GEOLOGICAL SURVEY—			
Amounts voted by Parliament.....	705,325 00		
Civil Government salaries.....		307,563 34	
Explorations, surveys, and investigations.....		199,600 29	
Wages.....		77,587 59	
Publication of reports and maps.....		42,482 76	
Museum equipment.....		14,587 26	
Sundry printing and stationery.....		12,483 49	
Instruments and repairs.....		6,349 90	
Library.....		5,796 90	
Mineralogical Division.....		4,699 63	
Specimens for Museum.....		3,000 00	
Miscellaneous.....		2,293 47	
Advertising.....		1,336 12	
Postages, telegrams, and telephones.....		1,140 28	
Photographic supplies.....		981 46	
			679,902 49
Balance unexpended and lapsed.....			25,422 51
MINES BRANCH—			
Amounts voted by Parliament.....	826,610 00		
Civil Government salaries.....		200,476 34	
Wages.....		153,198 21	
Expenses of ore dressing and metallurgical laboratories.....		61,821 16	
Subvention on Canadian coals.....		55,693 90	
Investigation of mineral resources and deposits.....		50,371 22	
Expenses of fuel testing plant and laboratory.....		30,304 36	
Printing and stationery.....		28,728 18	
Expenses of Dominion Fuel Board.....		8,230 51	
Operation of peat plant, Alfred, Ont.....		4,258 18	
Miscellaneous.....		2,899 83	
Chemical laboratory.....		2,117 39	
Compensation to J. H. Fortune.....		400 00	
Transportation charges on ore shipments.....		214 54	
Advances to be accounted for in 1930-31.....		2,899 57	
			601,613 39
Balance unexpended and lapsed.....			224,996 61
DOMINION OF CANADA ASSAY OFFICE—			
Amount voted by Parliament.....	27,140 00		
Earnings.....	46 50		
Salaries of staff.....		20,130 00	
Assayers supplies.....		995 06	
Miscellaneous.....		763 98	
Premium on bonds.....		462 50	
Electric burglar alarm service.....		360 00	
			22,711 54
Balance unexpended and lapsed.....			4,474 96
	1,677,450 50		1,677,450 50

DEPARTMENT OF MINES

Summary

	Grant	Expenditure	Grant not used
	\$ cts.	\$ cts.	\$ cts.
Civil Government salaries.....	633,445 00	579,581 29	53,863 71
Department.....	39,849 00	37,373 92	2,475 08
Geological Survey.....	373,000 00	372,339 15	660 85
Mines Branch.....	603,400 00	401,137 05	202,262 95
Dominion of Canada Assay Office.....\$ 27,140 00			
46 50			
	27,186 50	22,711 54	4,474 96
Miscellaneous gratuities.....	570 00	570 00	
	1,677,450 50	1,413,712 95	263,737 55

Casual Revenue

Sales of equipment, explosives permits, publications, etc.....	\$ 5,273 20
Sales of peat.....	4,214 09
Profit on gold bullion.....	1,295 63
Miscellaneous.....	608 69
	<u>\$11,391 61</u>

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REPORT
OF THE
MINISTER OF AGRICULTURE
FOR THE
DOMINION OF CANADA
FOR THE
YEAR ENDED MARCH 31, 1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

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REPORT OF THE MINISTER OF AGRICULTURE

1929-1930

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief
of the Dominion of Canada:*

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to your Excellency a report of the Department of Agriculture for the fiscal year ending March 31, 1930.

The work of the department was carried out in a most satisfactory and efficient manner and there will be found included a summary of the operations of the different branches of the department, all of which is laid before your Excellency under the respective headings.

The following Orders in Council establish new regulations or amend existing regulations under the various acts and policies administered by the department.

By Order in Council P.C. 559 of April 3, 1929, Section 17 of the regulations under the Meat and Canned Foods Act dealing with condensed and evaporated milk were rescinded.

By Order in Council P.C. 731 of May 1, 1929, the regulations under the Fruit Act were amended whereby the importer or his representative may use a number instead of his name for identification purposes.

By Order in Council P.C. 771 of May 8, 1929, the regulations under the Fruit Act governing the dimensions and specifications of fruit packages were amended.

By Order in Council P.C. 772 of May 8, 1929, the regulations under the Destructive Insect and Pest Act were amended to make certain changes governing the admission of nursery stock into Canada and the movement of corn in Canada.

By Order in Council 870 of May 23, 1929, the regulations under the Dairy Industry Act governing brands placed on cheese or packages containing cheese or butter were amended.

By Order in Council P.C. 852 of May 23, 1929, regulations governing the labelling of canned goods offered for export out of Canada were established under the Meat and Canned Foods Act.

By Order in Council P.C. 920 of May 29, 1929, the regulations under the Meat and Canned Foods Act governing the inspection of preserved fruits and vegetables were amended.

By Order in Council P.C. 1045 of June 18, 1929, regulations governing the dimensions of celery crates were established under the Root Vegetable Act.

By Order in Council P.C. 1159 of July 2, 1929, the Egg regulations under the Live Stock and Live Stock Products Act in regard to the marketing of eggs were amended.

By Order in Council P.C. 1146 of July 2, 1929, the regulations under the Destructive Insect and Pest Act were amended to make certain changes governing the admission of nursery stock into Canada from foreign countries.

By Order in Council P.C. 1158 of July 2, 1929, certain amendments were made to the regulations under the Fruit Act governing the grades established for tomatoes, etc.

By Order in Council P.C. 1896 of September 25, 1929, the Restricted Area Regulations under the Animal Contagious Diseases Act in regard to cattle shipped without testing to an abattoir in a restricted area were amended to provide for the feeding and finishing of said cattle.

By Order in Council P.C. 2010 of October 9, 1929, the regulations under the Dairy Industry Act were amended by the addition of regulations governing the definition of cheese.

By Order in Council P.C. 2019 of October 9, 1929, the regulations under the Cold Storage Act governing the control of cold storage warehouses were amended.

By Order in Council P.C. 36 of January 10, 1930, regulations governing the slaughter and inspection of horses and horse-meat were established.

By Order in Council P.C. 35 of January 10, 1930, the regulations governing the establishment of restricted areas under the Animal Contagious Diseases Act were amended.

By Order in Council P.C. 368 of February 17, 1930, the regulations under the Destructive Insect and Pest Act were amended to make certain changes in the regulations governing the importation of plants and wheat into Canada and the movement of corn, etc., in certain provinces.

By Order in Council P.C. 555 of March 12, 1930, the regulations under the Animal Contagious Diseases Act governing the importation of foreign hides, skins and by-products were amended.

By Order in Council P.C. 556 of March 12, 1930, the regulations under the Meat and Canned Foods Act were amended in order to provide for the exemption of reindeer meat from the operation of that Act.

By Order in Council P.C. 557 of March 12, 1930, the general regulations under the Destructive Insect and Pest Act as referring to the inspection for certified seed were amended.

DOMINION EXPERIMENTAL FARMS AND STATIONS

In Western Canada crop conditions were about up to the average by the end of May, but the unusual and prolonged drought which set in in June caused the crops to deteriorate steadily. Grain matured rapidly and harvesting and threshing were completed in record time. Inspections showed a larger proportion of higher grades than for several years, but yields, which varied considerably, were on the whole not only greatly inferior to those of 1928 but also much below the average.

Weather conditions in Ontario also had the effect of reducing grain yields. The hay crop was well up to the average, but potatoes gave a very low yield and corn was only a fair crop. Quebec received rather more rainfall than Ontario and results were superior to those of 1928. In the Atlantic provinces the season's operations generally were satisfactory, the apple crop in Nova Scotia being the largest in several years.

The British Columbia apple crop was much smaller than that of last year, but strawberries and cherries yielded heavily. Fair yields of grains of good quality were harvested.

Pastures throughout Canada showed the effect of drought.

AREAS AND ESTIMATES OF YIELD AND VALUE OF FIELD CROPS, 1929

Crop	Area	Yield per acre	Total yield	Weight per measured bushel	Average price	Total value
	acres	bush.	bush.	lb.	\$ per bushel	\$
Fall wheat.....	834,284	24.6	20,504,000	60.36	1.24	25,450,000
Spring wheat.....	24,420,718	11.4	279,016,000	60.80	1.15	321,052,000
All wheat.....	25,255,002	11.9	299,520,000	60.77	1.16	346,502,000
Oats.....	12,479,477	22.7	282,838,300	35.03	0.60	169,433,000
Barley.....	5,925,542	17.3	102,313,300	47.31	0.62	63,071,000
Rye.....	991,944	13.3	13,160,500	55.95	0.84	11,095,000
Peas.....	125,194	15.8	1,979,800	59.55	2.06	4,079,400
Beans.....	86,290	17.3	1,491,300	59.78	3.30	4,920,000
Buckwheat.....	515,976	20.3	10,470,100	47.60	0.94	9,867,000
Mixed grains.....	1,118,649	32.0	35,753,700	42.53	0.76	27,227,000
Flax seed.....	382,359	5.4	2,060,400	55.56	2.38	4,898,000
Corn for husking.....	152,055	34.1	5,183,000	55.64	1.06	5,469,000
Potatoes.....	543,727	cwt.	cwt.		per cwt.	
Turnips, mangels, etc.....	205,455	73.4	39,930,000		1.59	63,372,000
		176.3	36,228,000		0.53	19,063,000
Hay and clover.....	10,560,101	tons	tons		per ton	
Fodder corn.....	422,848	1.50	15,833,000		11.65	184,528,000
Sugar beets.....	43,464	7.86	3,322,300		4.59	15,265,000
Alfalfa.....	798,951	8.37	364,000		6.85	2,492,000
		2.30	1,835,000		12.63	23,183,000

NUMBER OF FARM LIVE STOCK IN THE DOMINION, 1925-29

Live Stock	1925	1926	1927	1928	1929
	No.	No.	No.	No.	No.
Horses.....	3,544,041	3,398,114	3,421,857	3,376,394	3,376,487
Milch cows.....	3,830,175	3,839,191	3,894,311	3,792,522	3,778,277
Other cattle.....	5,477,123	4,731,688	5,277,927	5,000,750	5,152,711
Sheep.....	2,755,556	3,142,476	3,262,706	3,415,788	3,728,309
Swine.....	4,426,148	4,359,582	4,694,789	4,497,367	4,381,725

PUBLICATIONS ISSUED

In addition to the regular issues of "Seasonable Hints," and the sending out of several hundred press articles, the following bulletins, pamphlets and circulars were issued during the year:—

BULLETINS, NEW SERIES

- No. 116. Microbiological Studies of Honey.
- No. 118. Seven Years' Experience with the Combined Reaper-Thresher, 1922-1928, on the Dominion Experimental Station, Swift Current, Sask.
- No. 119. The Late Blight and Rot of Potatoes.
- No. 121. Corn Growing in Manitoba.
- No. 122. Close Grazing.
- No. 123. Testing the Producers' Milk for Quality.
- No. 125. Use of Irrigation Water on Farm Crops.
- No. 126. Grading Up the Dairy Cow by the Use of Pure-bred Sires.
- No. 127. Bacteriological Investigations of Milking Machines.
- No. 130. Soil Moisture Experiments in Southwestern Saskatchewan.
- No. 132. Poultry House Construction (Revised).
- No. 134. Garnet Wheat Investigations.
- No. 18. Modern Orchard Practices (Revised).

PAMPHLETS, NEW SERIES

- No. 114. Improvement of Burn-out Lands in Southern Saskatchewan.
 No. 112. Sweet Clover.
 No. 107. Package Bees and How to Install Them.

CIRCULARS, NEW SERIES

- No. 72. Root Rots of Cereals.
 No. 74. Horsetail, A Horse Poisoning Weed.

CENTRAL EXPERIMENTAL FARM

DIVISION OF ANIMAL HUSBANDRY

The imported stallion "Sandy Mac," who has headed the Clydesdale stud at the Central Experimental Farm, Ottawa, for the several years past, was transferred to the Lennoxville Experimental Station in the spring of 1929 and since then a good son of this horse as well as the services of privately owned imported horses have been used at Ottawa. Some very good young mares have been sired by "Sandy Mac," and the eight foals raised in 1929 are very strong and rugged with no evidence of joint ill. Much needed additional accommodation for horses, including facilities for isolation and hospital quarters, was provided during the past year.

Some exceedingly interesting and useful information has been acquired through the practical study of the growing and finishing of commercial cattle. Forty-four head of steers purchased on the Winnipeg market in the early spring were used for this purpose at Ottawa. As fall prices were low they were fed for a winter market. When sold in December there was an increase in profits of \$137.50, as compared with what they would have realized in the fall.

A carload of western heifers of fair quality was also purchased on the Winnipeg market to test their utility as stocker or feeder cattle. They returned little profit and were generally unsatisfactory due to the fact that many of the animals were pregnant.

One hundred and two head of Herefords comprising calves, yearlings, and two-year-olds were brought to Ottawa from the Dominion Range Experiment Station, Manyberries, Alta., with the following objectives in view:—

1. To determine the economy of high class range cattle when fed in Eastern Canada.
2. To determine the most profitable age as relating to purchase and sale.
3. To determine the most profitable methods of finishing calves and yearlings; i.e., calves finished at approximately one year and eighteen months, etc.; finishing during the winter with maximum grain versus utilizing minimum grain, maximum roughage and finishing on grass.
4. To establish contact with and expand the work of the Dominion Range Experiment Station at Manyberries.

Experimental work with dairy cattle at the Central Experimental Farm, Ottawa, is confined to two breeds, namely, Ayrshire and Holstein-Friesian. The line breeding policy consistently followed in recent years has yielded most valuable results and the past year's breeding work was exceptionally satisfactory. It is a source of satisfaction to be able to report very favourable progress towards the control of genital diseases in dairy cattle through the application of the blood test, which work is being carried on in co-operation with the Animal Diseases Research Station of the Health of Animals Branch. The control of tuberculosis in the Central Farm herd still remains a problem, one reactor being discovered in the test made in November, 1929, in the isolated herd of reactors to the blood test.

Notwithstanding the drought, pasture conditions were good and an abundance of well cured hay was harvested. Unfortunately owing to a rearrangement of crop rotations the 1929 crop is largely timothy and this has had a decided influence on the returns from the dairy cattle during the winter.

A number of Holstein females were transferred to the Experimental Station at L'Assomption, P.Q., to establish a foundation herd and eight branch Farms were supplied with high class bulls bred at Ottawa. Several outstanding sires were purchased this year.

In the experimental work with swine during the past year the principal activity has been towards securing the fullest possible information as to the practical application of the Policy of Advanced Registry. Nutritional experiments to determine the optimum level of sodium chloride and potassium iodide were also carried on. Measures for the control of swine parasites were also continued. Attention is also being given to the problem of anaemia in young pigs.

A fairly large flock of Leicester, Shropshire cross bred and grade sheep is being developed with a view to ascertaining the possibilities of sheep farming under conditions in Eastern Canada. Considerable attention has also been given to control measures for the eradication of parasites. A series of pasturing experiments is also being carried on in co-operation with the Divisions of Chemistry and Field Husbandry to ascertain the value of rotated and fertilized pastures as grazed by sheep.

DIVISION OF AGRICULTURAL BACTERIOLOGY

During the past year, in addition to the investigational work carried on by the Division, a good deal of assistance was given to farmers and others through the analysis of samples submitted for bacteriological examination. These samples, numbering 361, consisted of water from farm wells, milk, honey, miscellaneous feeds and feeding stuffs, legume inoculants, etc. Assistance was also given to other Divisions of the Farm.

Considerable information as to the efficacy of legume inoculation under field conditions is being accumulated through the distribution of cultures to farmers, who, in turn, report to the Division.

An investigation regarding the factors concerned with honey spoilage through fermentation has been in progress since 1927. This work is being carried on in co-operation with the Bee Division, the Division of Chemistry and the National Research Council. It is proceeding along the following lines:—

(a) Study of the factors influencing the fermentation of honey by sugar-tolerant yeasts. This includes a physiological study of the yeasts concerned and also a consideration of factors which exert a stimulating or inhibiting effect upon the yeasts causing spoilage. Likewise a biochemical study of honey with a view to determining the presence of yeast growth-promoting factors is under way.

(b) Microbiological and biochemical studies of normal honey. Information is being obtained as to the extent to which normal honey is infected by organisms capable of setting up fermentation. Physical and chemical analyses are likewise made of the samples which have been obtained from all sections of Canada. In this experiment the Bee and Chemical Divisions are co-operating.

(c) Further studies on the sources of infection of honey by sugar-tolerant yeasts. During 1929 attention has been given to the soil.

The results of the work done in 1927 and 1928 have been published in bulletin No. 116, new series.

Contamination from dairy utensils is undoubtedly one of the most serious sources of germ infection of milk. Adequate sterilization of dairy utensils may be obtained by the use of steam or abundant hot water but the proper use of these agents is limited and, where they are not available, the problem is a serious

one. The use of chemicals for this purpose, particularly chlorine compounds, although not yet widely adopted by the producers, is gaining favour and appears to offer a practical alternative to steam or hot water sterilization. However, many factors concerned with the use of chlorine for farm purposes require investigation and the Division of Agricultural Bacteriology is giving its attention to the following points.

(a) The relative efficiency of different compounds in destroying bacteria common to milk.

(b) The corrosive action of various preparations upon the metals most commonly used in dairy utensils.

(c) The value of various preparations as sterilizing rinses for milk cans.

(d) The value of chlorine sterilization in the hands of the average farmer.

(e) The possibility of chlorine compounds being added to milk as a preservative.

Bacteriological studies of *Bacillus alvei*, an organism associated with European Foulbrood of bees, were continued. Its pleomorphic variation is being investigated with regard to the unsettled problem of the cause of the disease in question.

BEE DIVISION

While the past year's honey crop was rather patchy, in most localities the yield was well above the average. The winter of 1928-29 was fairly easy on bee life in Eastern Canada, but in Western Canada winter losses were rather heavy. Unfavourable weather in the spring, followed by long periods of dry weather in the summer when the major honey plants were in bloom, caused the beekeepers some anxiety. However, while the Saskatchewan crop fell short of that of the previous year, the crop in Manitoba exceeded that of 1928, while Ontario, Alberta and British Columbia eclipsed all previous records. Definite reports from the Eastern provinces are not available but good crops have been reported there also. The fall of 1929-30 was exceptionally favourable for the preparation of bees for the winter.

In a comparative test of Carniolan vs. Italian bees, the latter for the sixth successive year have produced a larger amount of honey and have given less trouble in the matter of swarm control.

Experiments have been under way for the past four years, to determine the advisability or otherwise of purchasing package bees in the spring of the year to strengthen weak, overwintered colonies. Only in the first year of the experiment did the strengthened colonies yield enough extra honey to pay for the cost of the package bees. However, in considering these results it must be borne in mind that the past four spring seasons have been decidedly unfavourable to the project.

An interesting experiment has been under way for the past five years to determine the approximate field force of a normal colony of bees. During this period, thirteen calculations have been made, the figures varying from 22,187 to 39,687 but only on two occasions did the figures fall below 31,000. It should be pointed out that these figures were not obtained by actual counts of the bees themselves but by weighing the hives at certain times, and assuming that there are approximately 5,000 bees in a pound.

In co-operation with the Divisions of Chemistry and Bacteriology, a study is being made of honey fermentation and an experiment is underway to determine the effects of temperature and humidity on the keeping qualities of honey. Preliminary work is also underway towards the control of granulation in extracted honey.

This Division is also engaged in the preparation of a scale of standards and regulations to govern the sale of honey on the domestic market. A tentative survey of the opinions of wholesalers, retailers and producers strengthens the view that such standards and regulations are advisable.

DIVISION OF BOTANY

In the field of economic botany the work during the past year was mostly of the usual routine nature. The annual exchange list of seeds collected in the year 1928, comprising the names of 1,369 species and varieties, was distributed to 125 botanical gardens and other institutions, and there was also the usual exchange of seeds and plants.

Another section of the "Bibliography of Canadian Plant Geography" covering the period 1901-10 was published during the year.

One hundred and thirteen surveys of pasture vegetation were made during the past year in connection with pasture renovation experiments in progress on several of the Eastern Experimental Stations.

In view of the growing interest in sodium chlorate and calcium chlorate as herbicides, tests were conducted with these materials. From the results of these tests, it is evident that annuals, and many shallow rooted perennials can be killed with applications that sterilize the soil but little.

The weed surveys were extended Westward through the Fort William and Rainy River districts of Ontario and a beginning was made on a similar survey in the three Prairie Provinces.

Of the 32,030 acres of potatoes entered for certification in 1929, 24,307 acres, or 75.9 per cent passed. This reduction of approximately 20 per cent in the acreages as compared with 1928 was but natural, following a year of overproduction and low prices. However, notwithstanding this the market value of the 1929 exceeded that of 1928 by over 50 per cent. Eighty-six per cent of the acreage of Irish Cobbler entered passed, but only 62 per cent of the Green Mountain entries reached the required field standards. Canadian certified seed remains in strong demand both from home and foreign growers, the fall exports from the 1929 crop having reached approximately 1,250,000 bushels, with indications that when the spring shipments are over the total quantity shipped from the 1929 crop will be not far short of 1,750,000 bushels with a value of well over \$2,000,000.

Nine hundred and fourteen foreign shipments of ornamental plants were intercepted and examined for disease.

The study of heterothallism in *Fomes pinicola* (Sw.) was continued and work was begun on a cytological study of the mycelium of several species of wood fungi.

Many reasearches of great importance are in progress at the various branch Plant Pathological Laboratories located in every province of the Dominion. The Laboratories at Charlottetown, P.E.I., and Fredericton, N.B., are chiefly concerned with diseases of potatoes. Experiments have shown that there is a distinct tendency in potato plants affected with mild mosaic towards greater susceptibility to late blight, at least, in the Green Mountain variety. Special attention is being given to the correlation of meteorological factors, mode of infection, and spread in storage.

The major operations at the Kentville, N.S., laboratory are directed towards apple scab, although considerable attention has also been given to field investigations on the fungus *Sclerotinia sclerotiorum* (Lib.) Massee, which causes a serious wilt of sunflower and hemp locally, and a severe rotting of carrots in storage. Investigations have been conducted on a serious disease of willow, and control measures have been devised.

At the laboratory at Ste. Anne de la Pocatière some very useful observations have been made on virus diseases of potatoes and on bean mosaic. Raspberry inspection and certification work was also continued.

Black knot of plums, peach canker, and peach leaf curl are among the diseases under investigation at the laboratory at St. Catharines, Ont., with special attention being given to improved control measures. The investiga-

tions on raspberry spur blight have been brought to a successful conclusion. Much interesting information has also been obtained from the studies on apple scab.

Experimental data collected at the Dominion Rust Research Laboratory, Winnipeg, during the last three years have shown that cutting a heavily rusted crop of wheat before it reaches the hard dough stage causes a reduction in both yield and grade. Experiments have also shown that a light infection of stem rust does cause appreciable damage to the crop. Both of these findings are contrary to the common belief. A survey has shown that bunt in durum wheat and loose smut in hard red spring wheat is becoming increasingly more prevalent in Western Canada. Both smuts can be controlled by the standard methods of seed treatment, but apparently many farmers have not properly treated their seed. An attempt to emphasize the importance of thorough seed treatment is being made.

Studies of the various root rot and foot rot diseases of cereals form the principal work of the laboratory at Saskatoon. Taxonomic studies of a large number of isolations of *Fusarium* were carried on, and the disease known as "Take-All" was studied in both field and laboratory. Survey trips were taken during the summer in order to keep in close touch with actual conditions with regard to the prevalence of plant diseases throughout Saskatchewan.

Research at the Edmonton Laboratory is directed toward obtaining necessary information concerning the fungi causing root rot diseases of cereals in order to provide a foundation on which to secure natural immunity against these diseases by plant breeding. A study has also been made of winter-killing of sweet clover, common clover, and alfalfa, with promising results.

Fruit and vegetable diseases prevalent in the interior of British Columbia are under investigation at the Summerland laboratory. Practical control measures have been applied for the alleviation of the physiological diseases, die-back, drought sport, and corky-core. Considerable knowledge has also been acquired during the past year on the distribution and severity of perennial canker, and the factors influencing the spread of infection. A spray service was inaugurated this year to advise the growers when to apply the first lime sulphur spray, in order to check the spread of apple scab infection.

In the course of bulb disease investigations conducted at the Saanichton laboratory a study was made of the influence of a number of inorganic mercurial dips as compared with mercuric chloride and formaldehyde, but no significant differences in efficiency were found. The experiments suggested that dips play but a small part in the control of tulip fire and gladiolus scab, and that soil conditions, fertilizer treatment and the removal and destruction early in the season of infected plants were the important control measures. Much valuable information has been obtained also from a study of "spindle tuber", a virus disease of potatoes quite common in British Columbia. Some interesting and rather unexpected results were obtained in the course of an investigation of the soils where the *Rhizoctonia* disease of potatoes was the most prevalent.

CEREAL DIVISION

Since experience has shown that some of the many new varieties of cereals being produced in different parts of the world may be expected to prove of value in Canada, the thorough investigation of such varieties continues to be one of the major activities of the Cereal Division. The evaluation of each variety is made on the basis of field performance in Canada.

While not neglecting the old varieties, this Division depends chiefly upon artificial crossing of carefully chosen varieties used as parents, as a means of obtaining improved types. This artificial crossing work is chiefly confined to

the Central Experimental Farm and the Dominion Rust Research Laboratory, Winnipeg, although more recently a certain amount of this work has been conducted at Brandon and one or two of the other branch Farms.

The chief objective in the spring wheat breeding work is the production of varieties capable of maturing early, of giving high yields of good quality on the one hand and, on the other, of producing high quality and high yielding varieties capable of resisting the ravages of disease, chiefly of wheat stem rust. It will require two or three years more before any of the exceedingly promising varieties under test can be referred to with any reasonable degree of assurance.

Considerable progress has been made in the oat breeding work, while the work with barley has been enlarged, a number of varieties from other countries having been tested, some of which gave promise of being very useful for crossing on some of our own established sorts.

Efforts are also being made to produce varieties of hemp capable of developing seed in this country with a view to eliminating or, at any rate, reducing the importation of hemp seed into Canada.

Much work has been done in isolating strains of flax capable of resisting the disease known as "Wilt", and in developing varieties capable of producing the maximum quantity of seed per acre.

At the Dominion Rust Research Laboratory, Winnipeg, the Cereal Division and the Botanical Division both have staffs of highly trained officers who are engaged in the task of producing a good milling variety of wheat, capable of resisting the most severe epidemics of wheat stem rust. It is confidently expected that the objective will be reached in the very near future.

A shipment of several thousands of bushels of Garnet wheat was despatched to Great Britain and Continental European Countries last spring, in order to obtain information as to the relative merits of this variety for the overseas trade. Trials were made by some of the large milling concerns there, under the direct supervision of the Dominion Cerealists. A detailed report on the results obtained is now in the hands of the department.

The Division has continued to assist, as far as possible, in providing a basis of supply of Elite Stock Seed and, during the past three years, has also assisted the Canadian Seed Growers' Association in checking up by means of growing tests; the purity of Elite Stock Seed and Registered Seed propagated by members.

A number of special problems are under investigation, including a study of:—

(a) The effect of environment upon the milling and baking qualities of different wheat varieties.

(b) The effect of different soil conditions and other factors upon the boiling qualities of peas.

(c) The inheritance of various factors and characters which may play a part in the production of superior varieties of cereal grains.

(d) The combining of different classes or varieties of coarse grains with a view to discovering combinations which may yield the maximum amount of digestible protein per acre at the lowest cost.

(e) The effect of various soil and climatic conditions, on the quality of barley for the manufacture of malt.

(f) The classification and description of cereal varieties of different classes.

(g) The adaptability of different wheat varieties to different regions, as a basis upon which to construct a wheat variety map.

DIVISION OF CHEMISTRY

The increasing volume of work with a resultant widening of the scope of the Division of Chemistry is indicative of a growing appreciation of the value of the application of chemistry to farming operations.

Among the more important researches in progress is an investigation of a system of close grazing. Two of the most important variations noted in the results for the third season are (1) still higher percentages of protein from the herbage of the frequently cut plots, especially from that cut fortnightly, and (2) lower yields of dry matter from all the plots. The yields in the early part of the season were heavier even than those obtained in 1928 but drought in August and September retarded growth and reduced the yields. The Divisions of Animal Husbandry and Field Husbandry have inaugurated practical work in the grazing of cattle and sheep by this method, both at Ottawa, Ont., and Fredericton, N.B.

Tests have shown that both roots and leaves of turnips that have been topped several weeks before being pulled, contain decidedly less dry matter than those topped at a later date. The earlier topped roots also have a somewhat lower sugar content.

An examination of further soil samples from farms on the Massawippi River, P.Q., showing injury from mine waste gave further evidence that the injury was caused by excessive soil acidity, the result of the oxidation of iron pyrites present in the mill tailings deposited in the land during flood periods. Heavy applications of ground limestone were suggested towards the reclamation of the affected areas.

Farmers in increasing numbers are submitting soil samples for analysis with a view to obtaining advice in regard to the increasing of soil fertility through the use of fertilizers, lime, etc.

Fertilizer experiments have been inaugurated on the peat areas in the vicinity of Caledonia Springs, in co-operation with the Divisions of Illustration Stations and Field Husbandry. Results from experiments in Eastern Canada indicate that nitrophoska, a new complete fertilizer and nitro chalk, a nitrogenous fertilizer recently put on the market, may be very profitably employed for the majority of farm crops. Fertilizer experiments in Alberta and Saskatchewan have given more or less conflicting results but on the whole indicate that many of the soils of these provinces may be benefited by drilling in a light application of a phosphatic fertilizer for the farm crops.

Experiments are also in progress to determine the influence of the mineral content on the boiling properties of peas.

Other investigations undertaken include the preservation of eggs by carbon dioxide; determination of the best conditions for storing honey so as to prevent fermentation; a study of factors influencing leg bone formation in chicks; a study of iodine in animal nutrition; and, in co-operation with the Health of Animals Branch, an investigation of red water disease in cattle in the Fraser valley of British Columbia.

The work with insecticides and fungicides is featured by close co-operation with the Entomological Branch. Laboratory experiments at Annapolis Royal, N.S., towards a more effective spray mixture were encouraging but owing to the lateness of the season field experiments had to be deferred until the following season.

As in previous years a considerable number of samples were received for examination under the regulations of the Meat and Canned Foods Act.

A special investigation into the composition of various jams was undertaken with a view to the revision of the standards for jams and preserved fruits.

EXTENSION AND PUBLICITY

Agricultural educational exhibits, for which the demand during the past year was greater than ever, were sent out from the Central Experimental Farm to over forty of the principal agricultural, poultry and other fairs in the Dominion. Special exhibits were prepared for the Canadian National Exhibi-

tion, Toronto; Royal Winter Fair, Toronto; Central Canada Exhibition, Ottawa; Maritime Winter Fair, Amherst, N.S.; and the larger exhibitions in the West, such as Brandon, Calgary, Edmonton, Saskatoon and Regina. Educational and livestock exhibits were sent out from the branch Farms to forty-six exhibitions, and the staffs of the Farms assisted in judging at sixty-seven exhibitions and fairs.

The lantern slide sets prepared by this Division are widely used. Many educational institutions send in regularly, year after year, for different sets for use in teaching their classes in agriculture. A new set has been prepared, together with an explanatory manuscript, on the work of the Field Husbandry Division, and the set on "Profitable Poultry Keeping" has been brought up to date.

"Seasonable Hints" are now published quarterly to correspond with the seasons of the year—spring, summer, fall and winter. The fact that it is necessary to print nearly half a million copies of each issue bears testimony to the widespread popularity of this publication.

Press articles, specially written for farmers and sent out by this Division to the press during the past year, were given very wide circulation. They serve as an excellent means of getting seasonal and special information to a larger number of farmers in a very short time.

Seventy-four publications were edited and prepared for printing during the first ten months of the fiscal year. These included Divisional and Branch Farm reports, bulletins, circulars and pamphlets.

Sets of cereals, grains, grasses and fibre material, as well as an exceptionally large number of collections of photographs illustrating the work of the various Divisions of the Experimental Farms were prepared and sent out to educational institutions and organizations. Lecture charts, legends and publicity signs, etc., were also prepared and distributed.

In the multigraph room several hundred thousand copies of forms, circulars, reports and press articles were printed, and ninety thousand envelopes addressed.

ECONOMIC FIBRE PRODUCTION

At the Experimental Station at Kentville, N.S., where a small fibre mill has been installed, large plots of flax and hemp are grown, retted and scutched, with the object of demonstrating every process in the preparation of flax and hemp for marketing, and to determine what profit may be obtained by producing these fibre crops in the Maritimes. As a result of this work, groups of farmers at Lunenburg, N.S., and Goshen, N.S., have decided to undertake the production of flax, the Fibre Division supervising the growing of the crops until the farmers are able to carry on this work themselves. Small plots of flax and hemp are also grown each year at the Experimental Stations at Fredericton, N.B., and Nappan, N.S.

Flax work at the Experimental Station at Ste. Anne de la Pocatière, P.Q., includes variety tests, and tests of rates, dates and methods of seeding as well as the application of commercial fertilizers. Last year some 400 farmers had their flax scutched in the mill at this Station, which was installed chiefly with the idea of encouraging the homespun linen industry.

Flax and hemp are also grown each year at the Lennoxville and La Ferme Experimental Stations. The former district appears to be well adapted to the growing of hemp.

The Division is also supervising the work at three commercial flax mills located at Ste. Fidèle, Beauceville and De Beaujeu, P.Q. At this latter point, a co-operative society of farmers has erected an up-to-date mill, and have grown approximately 800 acres of flax this year.

Considerable experimental work, covering practically every phase of the production and handling of fibre crops, is in progress at the Central Experimental Farm, Ottawa. Here there is a well equipped mill where the flax and hemp grown at Ottawa and on some of the branch Farms is retted and scutched. Flax and hemp are also grown each year at the Experimental Station at Kapuskasing, Ontario, to gain information on the yields and quality of fibre obtainable in this northern part of Ontario.

Until recently it was necessary to import all our hemp seed from Kentucky, but tests conducted at the Experimental Station at Harrow, Ont., indicate that this district is quite capable of producing hemp seed equal to that obtained from Kentucky. Efforts are now being directed towards the production of more suitable varieties by selection and breeding and to reducing the costs of production.

The Division is also co-operating with the Ontario Agricultural College which has recently undertaken a series of experiments with fibre crops.

J.W.S. flax seed grown for export to Northern Ireland is cleaned and graded at the plant established at Bright, Ont., in 1927. Every sack containing J.W.S. seed, conforming to the standard prescribed for No. 1 grade, is sealed and marked in red letters—"Grown and graded under the supervision of the Department of Agriculture," thus affording a valuable safeguard to the Irish buyers as regards purity, quality and weight of seed.

Experiments in the production of flax and hemp for fibre are being carried on at a number of the Prairie Experimental Farms and at Agassiz, but the great problem on the prairies is to obtain sufficient moisture in the fall of the year to ret the straw. The Division is attempting to solve this problem by snow or winter retting.

A very promising flax and hemp scutching machine has been developed by the Fabricord Incorporated of New York. A three day demonstration showed that this machine not only cleans green flax straw exceptionally well, but handles the different grades of straw without any mechanical change. While the trials have not been extensive enough to warrant any definite pronouncement as to its real value, it certainly appears to possess considerable merit.

DIVISION OF FIELD HUSBANDRY

This Division is conducting an extensive series of experiments in an effort to learn the best rotations of crops and the best methods of cultivation for various soil and climatic conditions. Different methods of seeding and harvesting are also being studied to discover what methods give the best results. Other experiments are designed to learn the best methods of employing farm manure and commercial fertilizers. Considerable work has also been done in regard to the problems of drainage, soil moisture, pasture renovation, silage crops, and weed eradication. Trials are also made with new types of farm machinery.

Cost of production studies have been in progress for many years, not merely with the object of learning the definite cost per acre to handle the various farm crops but also to indicate which crops are the most profitable and which crops utilize labour throughout the season most satisfactorily. By keeping an accurate record of the yields of crops from the various fields, the cost of producing these crops and the revenue received, it is possible to learn more definitely what rotations should be followed to give the best results.

Records show that on six Experimental Farms from 1922 to 1926 it cost an average of \$8.10 per ton to produce a hay crop averaging 2.64 tons per acre with but one cut of hay per season. On the Central Experimental Farm at Ottawa, where alfalfa is included with the regular hay mixture and where two cuts of hay per year are secured, the cost has averaged \$6.63 per ton.

Corn silage has given an average yield of 13.5 tons per acre on seven Experimental Farms at a cost of \$3.46 per ton, as compared with an average yield of 17.14 tons at an average cost of \$3.14 per ton at the Central Experimental Farm, Ottawa. A reduction in this cost may be made by the use of the Ronning ensilage harvester, a machine which takes the place of the corn binder and ensilage cutter. Depending upon the acreage and yield of the crop, this machine will effect a saving of from 10 to 20 per cent in the ensilage costs as compared with the usual corn binder and silage cutter method.

In view of the fact that most of the items incurred in the cost of producing crops are the same whether the crop is large or small it is apparent that one of the best methods of reducing the cost of producing crops is to increase yields, and this can best be accomplished by the adoption of the better farming practices. Another means towards this end is the use of larger and better machinery and labour-saving equipment where the farm is large enough to warrant the purchase of such machinery. By keeping cost of production records a farmer is enabled to determine which crops are the most profitable.

Valuable data have been acquired over a period of many years on the cost of producing grain in the Prairie Provinces, on summer-fallow land and on land that has grown one or more crops of grain. These costs have been calculated with four-horse outfits and with the binder and ordinary thresher method of harvesting.

As indicating the enormous development in the use of power machinery in the Prairie Provinces it may be of interest to state that in 1929 there were reported to be over 85,000 tractors in use. The use of these, the introduction of wide tillage and seeding implements, the use of larger horse outfits and of combines have all materially reduced the hours of manual labour required to produce grain. Incidentally the combine was first introduced and experimented with on the Dominion Experimental Station at Swift Current, Sask., in 1922. There are now 7,726 of these machines in use in the three Prairie Provinces. With these newer methods of crop production the man labour required may be reduced to one-third of the requirements under the older methods.

The use of the combine alone, as compared to the binder-thresher method, has not only effected a saving of nine cents per bushel on a twenty-bushel crop, but has also enabled one man to handle a very much larger acreage than was formerly possible.

A bulletin on the "Cost of Producing Crops in Eastern Canada" has already been published by the Division of Field Husbandry, and a similar bulletin is now in course of preparation, dealing with the cost of producing crops in the Prairie Provinces.

DIVISION OF FORAGE PLANTS

The additional area of land placed at the disposal of this Division in 1928 has made it possible to plant out large plots of breeding material. A large increased block devoted to a strain of red clover developed at the Central Experimental Farm produced a fair crop of seed, in spite of the dry mid-summer conditions.

A large number of intercrosses, purified varieties and inbred strains of corn were planted in comparative test plots with the parent types and with commercial varieties. In some cases the intercrossed material gave not only a profitable increase in yield but also matured in a shorter time.

Several inbred strains of sunflowers continue to give promise of outyielding the best commercial lots.

With a view to testing the pasture value of the most promising grasses and legumes available to Canadian farmers, a comprehensive series of plots was planted out in 1929. The various types of pasture plants were seeded alone and

in combination. Seed was also obtained of the best pasture types being developed by the outstanding forage crop breeding institutions in Great Britain and the Scandinavian countries. These importations will be planted out in 1930 to test their suitability to Canadian conditions.

Turf grass investigations were continued and new material acquired which is reported to have particular value for the production of a satisfactory turf.

At the Experimental Station at Harrow, Ont., the best individual strains of corn are being further selected and recombined.

In an experiment designed to study the effect of delayed planting on the ravages of the corn borer, the results of the last three years show that larger yields of marketable ears of corn were secured by planting later-maturing varieties at the normal time than by the delayed planting of earlier-maturing sorts. In fact, during 1929 a considerable proportion of the corn which had been delayed in planting failed to mature previous to receiving frost injury in the fall.

Tests have shown that broom corn can be successfully grown in the southwestern peninsula of Ontario but, owing to the high price of land, it is questionable if the crop can be produced profitably.

Substantial progress has been made in the range improvement investigations at Manyberries, Alta. This work includes (1) a study of the native vegetation; (2) a study of the effects of the different grazing practices on the vegetative cover; (3) the improvement of range pastures by reseeding, surface cultivation, the application of fertilizers and other artificial means; (4) the growing of cultivated forage crops. Further collections and chemical analyses have been made to determine the relative value of the different species of forage crops on the range. Provision has also been made for a water supply to irrigate the land for the purpose of growing types of forage crops unsuitable to the dry land conditions. Windbreaks have also been established.

Surveys were also made of range lands in outlying areas, including Buffalo Park, Wainwright, Alta.; the Antelope Park, near Etzikom, Alta.; the Forest Reserve, near Coleman, Alta.; and part of a large range area north of Ashcroft, B.C. In conjunction with these definite surveys, experiments are in progress with the co-operation of ranchers in representative areas to determine the possibility of profitable production of forage crops.

DIVISION OF HORTICULTURE

Facilities for work in the Division of Horticulture have been greatly improved by the erection of a new office and laboratory building, with a commodious cellar for the storage of fruits.

Nutritional studies were continued during the past year with trees in pots, by which means more exact methods can be followed than in the orchard. Experiments which have been conducted in commercial orchards, at Abbotsford and Chateauguay, P.Q., have shown the value of the sod mulch method. Trees subjected to this treatment have made a striking improvement annually, both in appearance and yields, compared with those not mulched.

Fertilizer experiments in these same orchards have shown that while nitrogenous fertilizers will produce beneficial results in many cases, it is necessary to use a complete fertilizer if good results are to be obtained year after year. The variety "Wealthy," which as a rule is a biennial bearer, has, since the use of complete fertilizer, become an annual bearer in the orchard under experiment.

The results of experiments have shown that, in order to obtain maximum crops of fruit, it is necessary to use varieties which will successfully pollinate one another. While work in pollination has been done in Ottawa for some years, a study of this problem was begun in 1929, at Abbotsford, P.Q., when some 8,000 apple flowers were pollinated. The value of some of the new varieties of apples

originated in the Division of Horticulture, such as Melba and Lobo, for pollinating McIntosh, which is usually sterile to its own pollen, was brought out in this first year's work.

In the breeding work, the Division is aiming to produce highly coloured apples of the best quality for all seasons of the year, for which there is now a demand. A few of the most outstanding varieties are Melba, Joyce, Lobo, Hume and Sandow. Breeding work is also in progress with pears, plums, cherries, raspberries, gooseberries, strawberries and blueberries.

Variety tests of vegetables have been carried on for the past forty-one years and novelties are compared from year to year with established best varieties. Few novelties from other countries compare favourable with the new ones bred in the Division of Horticulture. The Alacrity and Herald tomatoes, Banting and Pickaninny corn, and Ruby rhubarb have all given a good account of themselves over a very wide territory.

An early good-sized egg plant, which promises to be of great value to Canadians, has been produced by crossing a Japanese egg plant called "Nagasaki" with the Black Beauty. Selections were made in 1929 with a view to getting various types fixed.

The selection of foundation and elite stock seed of certain vegetables, according to the rules of the Canadian Seed Growers' Association, was continued in 1929, as also was the testing of varieties of vegetables for purity and trueness to name, this latter work being carried out in co-operation with the Seed Branch.

A comprehensive project, designed to learn the value of paper for mulching crops, was conducted on the Central Experimental Farm and at ten of the branch Farms. The results of this experiment show that most vegetable crops are improved by the use of the paper, especially the heat-loving plants, such as melons, cucumbers and tomatoes, but the cost of the paper is high and its economical use is very doubtful in most cases. Further experiments will be conducted in 1930.

There is ample evidence of a considerable and ever-increasing interest in ornamental gardening. A new race of lilacs called *Syringa Prestoniae*, the result of a cross between *Syringa villosa* and *Syringa reflexa*, have aroused particular interest. They are later in blooming than the varieties of common lilac, with splendid shades of colouring, though not sweet scented like the common lilacs. The work with lilies has attracted so much attention that Miss Isabella Preston, Specialist in Ornamental Horticulture, has, at the request of one of the large publishing houses, written a book entitled "Garden Lilies."

Many fine new varieties of hybrid roses, irises, columbine and ornamental crabapples have been produced.

During the year bulletin No. 113, New Series, "Herbaceous Perennials" was published, and has proved very popular. In the greenhouse, comparisons were made of the yield of cut flowers and quality of bloom of the standard varieties and novelties of sweet peas, antirrhinums and carnations. Varieties of schizanthus, cyclamen and geranium were also tested. Promising varieties of chrysanthemums, originated in the Horticultural Division and named during the past year, are Barbara Mackay, Mrs. R. A. Kingman, and Ella Sutherland.

A fine strain of greenhouse cucumber, a cross between Hescrow and Deltus, has been developed and seeds have been sent to growers, who have reported very favourably upon it. A very fine type of tomato has also been developed and work is in progress towards the development of a head lettuce of good size, which will not be affected with tip burn. Breeding work with apples, pears, plums, cherries, gooseberries, blueberries, raspberries and blackberries was continued.

DIVISION OF ILLUSTRATION STATIONS

The thirty-three new Illustration Stations established during the past year bring the total number in operation to 193. This increase in number was accompanied by an expansion in the program of demonstration work carried out in the different provinces. Through the medium of these Illustration Stations, many farmers have been induced to adopt the principal of crop rotations, and the use of pure clean seed, thorough seed bed preparation, the use of suitable varieties, systematic improvement of the dairy herd, including the use of proven sires and the keeping of individual milk records.

The value of crop rotations and proper cultural practices as factors in the economic control of weeds in grain farming areas has been well demonstrated on the Illustration Stations in Manitoba.

Demonstration work with chemical fertilizers has been carried on in every province. In Manitoba, Saskatchewan and Alberta special attention has been given to a study of the value of phosphatic fertilizer in grain farming practices. In the eastern provinces and British Columbia, the effects and value of fertilizers for permanent pastures, as well as all classes of cultivated crops, was studied and demonstrated. On the Illustration Station at Duncan, Vancouver Island, B.C., superphosphate was applied to old pasture land at the rate of 500 pounds per acre. The plots were replicated five times with five untreated plots as check. This application not only increased the yield to more than three times that obtained on the untreated check plots but also improved the general quality of the hay, due to the large proportion of clover in the mixture.

At Radville, Sask., a comprehensive series of experiments is in progress towards the improvement of "burn-out" lands. A preliminary report on this work has been prepared and will shortly be issued in pamphlet form.

The sale of surplus seed by the Illustration Station operators during the past year, amounted to 42,387 bushels of seed grain, 10,739 bushels of seed potatoes and 18,790 pounds of grass and clover seed, showing an increase over former years. This multiplication and distribution to neighbouring farmers of suitable varieties of seed is but one of the many important services being rendered by these Stations in their respective communities.

Another important line of work undertaken on these Stations is that of live stock and poultry improvement. While high producing, accredited, pure-bred herds of cattle are maintained on a large percentage of the older established Stations where dairy farming is being practised, on some of the newer ones this improvement work is only in the preliminary stages. However, in many cases the results of the first two years, as indicated by the individual milk records, are such as to convince the operator of the advisability of eliminating the low producers and of adopting a vigorous policy of improvement through the use of proven sires and greater attention to feeding. Neighbouring farmers are able to procure well-bred animals for breeding purposes from many of the Illustration Stations. Such sales during the past year included 282 head of cattle, 274 hogs and 165 sheep. Equally good work has been done with poultry, and 1,526 settings of eggs, 673 cockerels, and 818 pullets were sold by the various operators during the year.

The supervisors organized and held 115 field and public meetings, acted as judges at twenty-seven exhibitions and assisted with the program at ten short courses.

POULTRY DIVISION

The year 1929 was one of steady progress in the poultry industry in Canada. A finer type of poultry accommodation and equipment is being used on the more specialized farms and the demand for day-old chicks and six- to ten-week pullets is well in advance of the supply. Egg prices were low during the early part of the year but recovered in the spring and from June on held

slightly higher than during the previous year. There was an excellent market for storage eggs during the fall. Prices for dressed fowl, while high during the first part of the year were depressed considerably during the holiday season.

As President of the World's Poultry Science Association, The Dominion Poultry Husbandman was called upon during the past year to visit a number of countries in Europe, Africa, Asia, and Asia Minor, in the interests of the World's Poultry Congress which is to be held in England in July, 1930. Considerable preparation has already been made towards Canada's participation in this event. This country's contribution will include a national exhibit dealing with poultry work in Canada, also a live bird exhibit of 1,000 birds, a display from each of the provinces, exhibits from various commercial firms as well as from the Canadian Pacific and Canadian National Railways and the Federal Department of Agriculture.

Excellent progress has been made in the experimental work being conducted in the Poultry Division. This covers all phases of poultry work such as incubation, brooding, rearing, culling, feeding, egg production, breeding and housing. The results of these experiments when completed are conveyed to the farmers and poultrymen through Divisional Reports, press articles, exhibits and lectures. As superior methods of control are inaugurated the problem of disease becomes a factor of less importance in experimental work and as a consequence more reliable results are obtained. Wherever possible large numbers of birds are used in order to reduce the factor of experimental error to a minimum. Moreover, many of the experimental projects are being conducted, not only at the Central Experimental Farm, Ottawa, but also on the various branch Farms throughout the Dominion, thus enhancing the value of the results obtained. On the Central Experimental Farm, not only egg production, but also the size of egg shows marked improvement due largely to years of careful selection and to some extent to the fact that new land has been made available for the rearing of the stock. The increasing emphasis that is being placed on the size of egg of the dam of the male rather than on mere numbers of eggs, must in a few years react favourably to the improvement of Canadian eggs.

Thirteen egg laying contests were conducted by this Division in 1929, including the Canadian Contest at Ottawa and one or more Contests in each of the provinces. The average production of the 5,256 birds in trapnests in these contests in 1929 was 176.5 eggs per bird. This is an increase of 54 eggs per bird since the contests were established in Canada 10 years ago.

There was a large increase in the number of females registered in 1929 over the previous year due to the increased size of egg, there being fewer birds disqualified for laying eggs under 24 ounces per dozen.

That poultry breeders are realizing more and more the value of pedigree in poultry breeding work is evidenced by the ever increasing demand for registered birds, especially cockerels. During the year 16,500 chicks were banded from registered hens, which is slightly over ten chicks per hen.

The bulk of the work from this Division in the province of Quebec is in connection with registration and contests. French correspondence is very heavy and lectures and demonstrations have been given throughout the province.

Poultry exhibits, killing and plucking demonstrations and lectures were given at all the important fairs throughout Eastern Canada.

As more highly trained men are becoming available the poultry work on the branch Farms is steadily increasing in scope and excellence.

Poultry disease work is carried on in co-operation with the Health of Animals Branch. A large number of autopsies were made during the past year indicating the high incidence of intestinal parasitism, with pullorum disease ranking next in order, followed by diseases incident to egg production. A large number of the branch Farms are being brought into the pullorum elimination

program. A comparison was obtained between Single Comb White Leghorns and Barred Plymouth Rocks in the matter of mortality and also a definite correlation between mortality and egg production.

TOBACCO DIVISION

As a result of extreme drought during July and August, the yields per acre of Bright, Burley and Dark tobaccos, in western Ontario, were reduced by twenty-five, ten and nine per cent, respectively, as compared with the yields obtained in 1929. The "per acre" yields obtained in British Columbia were down to only forty per cent, as compared with 1928, but the cigar types which were grown in Quebec under more favourable seasonal conditions gave yields per acre at least ten per cent in excess of those obtained in 1928.

During the past year, the experimental work with tobacco has been considerably revised and expanded, not only on the Central Experimental Farm but also on the various branch Farms and Stations where tobacco work is carried on. Special attention has been given to fertilizer trials, which have been built around a basal formula, and the check plots so arranged that direct comparisons can be made to overcome field variations.

The development of a system of evaluating quality in tobacco represents probably the most advanced step in the tobacco investigations. A "grade index" has been devised and quality records so arranged that information on specific qualities, such as colour, body, etc., of such types as Bright, Burley, Dark, and cigar binders, is directly obtainable.

Variety tests were continued and pure seed of acceptable varieties was grown at the various Farms and Stations, for distribution to growers. During February and early March, a number of meetings were held at various points throughout the tobacco section of western Ontario. At these meetings, grading demonstrations were given and cultural problems, fertilizers and varieties were discussed. A closer system of co-operation has been established between the federal and provincial Departments of Agriculture, whereby reliable information is given to the grower.

The scoring system, as applied to Ontario tobaccos, was revised with the object of emphasizing, to the growers, deficiencies in Canadian tobacco and also those characteristics which are most desirable, in keeping with the latest trends of manufacture. In Canada and abroad.

The Division has continued to assist in educating the public in regard to domestic tobacco production, and some progress has been made through the medium of exhibits, notably at the Central Canada Exhibition, Ottawa, and in co-operation with other agencies at the Canadian National Exhibition, Toronto. An exhibit was also furnished to the Department of Immigration and Colonization, for use in Kentucky.

With the object of bringing Canada's position as a tobacco producing country prominently to the attention of the British public, the Tobacco Division prepared a most comprehensive display, augmented by commercial samples from various producers and packers. In co-operation with the Canadian Government Exhibition Commission, this display was exhibited at the British Industries Fair, the Ideal Homes Exhibition, in London, England, and subsequently, at many of the smaller exhibitions throughout the British Isles.

Following the British Industries Fair, in February, 1929, a comprehensive survey was made of the possibilities for marketing Canadian leaf in the United Kingdom. The opinions of various members of the trade as to the relative merits of the Canadian product, generally speaking, were favourable, the chief criticisms being that much of the Canadian leaf has been poorly graded, is too high in moisture content and very dirty. Favourable reports have been received as to the quality of new belt flue cured, the main criticism

being lack of maturity. High quality, both in the leaf and pack, are essential. In general, it may be said that the Old Country market continues to be the most promising export outlet for Canadian leaf, but secondary markets for low grade leaf are being developed, notably in Belgium and, to some extent, Germany and the Netherlands.

BRANCH FARMS AND STATIONS

EXPERIMENTAL STATION, CHARLOTTETOWN, P.E.I.

Germination and growth were rapid and the crops matured quickly. Hay and cereals were above the average in quality, and the growth of roots and late potatoes was aided by heavy autumn rains. There was no frost between May 20 and October 28, a period of 161 days.

Five cows and one heifer in the Ayrshire herd qualified in the Record of Performance test. Results obtained in steer feeding tests indicate that there is very little difference in the feeding value of swedes and cull potatoes and that both will produce satisfactory gains when fed in reasonable quantities. Twenty-four steers fed for 107 days, returned a profit of \$438.72 over the original cost of the steers and their feed. Breeding stock from the herd of Yorkshire swine was sold locally and to breeders in the Magdalen Islands.

The cost of producing oats has been lowest on a five-year rotation where the oats followed a hoed crop. Potatoes, wheat, clover and timothy hay were produced at the least cost on a four-year rotation.

Variety tests of corn, roots and sunflowers were continued, the results being calculated on a dry matter basis.

In the cereal variety tests, Huron and Early Red Fife wheats, Banner, Victory, and Alaska oats and Charlottetown No. 80 barley have been found the most satisfactory for conditions on Prince Edward Island. Breeding work with cereals is also in progress.

Experiments with soils and fertilizers have aroused considerable interest as evidenced by the ever-increasing number of inquiries from farmers.

Apples, plums and cherries gave excellent yields, but strawberries and raspberries were badly injured by the weevil.

Egg production in the poultry plant was very good indeed, a Barred Rock hen, No. M-172, topping this list with 314 eggs. Eighty-one birds qualified in the eleventh Egg Laying Contest and were registered.

The average production of honey per over-wintered colony was 92 pounds. Experimental work was continued and 26 queens were reared.

There has been a noticeable improvement in the livestock and poultry and in the quality of the crops produced on the Illustration Stations.

Exhibits were shown at the Provincial Exhibition and at Georgetown and the Station staff judged at a number of exhibitions and school fairs, as well as giving a mid-winter series of lectures throughout the province.

EXPERIMENTAL FOX RANCH, SUMMERSIDE, P.E.I.

A study of factors controlling reproduction in female foxes has shown very definitely that, in order to obtain favourable breeding results, it is absolutely necessary that females make a pronounced gain in weight during the fall months, the lower limit apparently being about 30 per cent and the optimum gain between 50 and 60 per cent. The amount of food at this time of the year should be between five and ten per cent above the maintenance ration, but even though this larger quantity of food is fed to the foxes a satisfactory gain in weight will not result unless the rations contain a wide assortment of vitamins. In order to obtain favourable breeding results, breeders should take

special precautions with the diet during the summer and fall months and not rely upon the rations fed during the breeding season.

A great deal of evidence has been obtained concerning the inheritance of the silver colouring in foxes. From the results as a whole, it would appear that pale and extra pale foxes should be inbred as closely as feasible, while dark foxes should be bred distantly related.

Experiments in the feeding of high meat rations for successive generations have shown that, if continued for several years, this practice destroys the breeding qualities of the animals. In the second generation, the results have been most disastrous with practically an entire failure in production.

Some interesting experiments have been carried out to determine the rate of digestion of certain foods, the results indicating that when two meals per day are fed it is advisable to feed the meat meal in the morning and to feed whatever cereals may be given to the foxes at the evening meal.

Ten pens with board floors, each measuring 8 by 16 feet, were constructed during the year, for use in connection with the study of the control of parasitic infestation. Over eighty pups were raised on these board floors, the pups being placed in these pens at three weeks of age along with their mothers, and the mothers removed when the pups were seven weeks old. There was no evidence of the typical lung worm infestation amongst these pups so long as they remained on the board floors, although it was known that some of the mothers from which they were produced were infested with lung worms while they were on the board floors with them. With adult foxes with mild infestations of lung worms there was an immediate improvement in the condition after placing them on the board floors. In chronic cases the favourable results were not so pronounced.

In the control of the infestation of bladder worm also, the placing of the foxes on board floors during the summer and fall months has given the best results.

EXPERIMENTAL STATION, KENTVILLE, N.S.

Seeding was started early in May, but rains towards the end of the month delayed the work and on wet lands crops were seeded late. Precipitation between June 1 and September 14 was much below the average for the previous fourteen years.

The herd of dual-purpose Shorthorn cattle at this Station has continued to make steady progress and a number of promising heifers, sired by the bull "Comet 3rd," are being raised. Three Yorkshire sows are entered under the policy of Advanced Registry for swine.

Prospects for a large crop of good clean apples appeared to be very good at the beginning of the season. The bloom had been heavy and the set good. Apparently, however, during the first days of June some of the foliage not fully protected by a fungicide became infected, and with the heavy rains after September 14 the apples became infected from the foliage. The result was a pinhead development of apple scab in storage which, in many cases, caused considerable loss. There was also much undersized fruit, particularly of the varieties Duchess, Wealthy, McIntosh, and Baldwin. There was considerable box-packing of such varieties as Cox Orange, Gravenstein, Ribston, McIntosh, Wagener, Russet, and Spy. Since this method of handling these apples appears likely to prove profitable, the box pack will be used more extensively at the Station another year.

An orchard fertilizer consisting of 200 pounds each of nitrate of soda, sulphate of ammonia and superphosphate, and 100 pounds of muriate of potash, mixed together and applied at the rate of 450 to 600 pounds per acre, according to the growth of the trees, has been found satisfactory.

Clapps' Favourite and Bartlett pears have proven to be the most suitable varieties for the Annapolis valley. The cherry and gooseberry crops were good, plums average, raspberries fair, and other bush fruits light. Strawberries were much below the average, both in yield and quality.

A considerable number of varieties of annual and perennial flowers and ornamental shrubs are under test and data have been secured as to the value of many of these.

Cultural and variety tests of vegetables also were continued, and tomatoes did particularly well. On plots where paper mulch was used, increased yields of cucumbers, egg plants, peppers, and tomatoes were obtained.

Forage crops did well early in the season, but, with the dry summer, the yields of corn and mangels were about 25 per cent and turnips about 20 per cent below average.

In the rod-row tests of cereals the results this year confirmed those of previous years, indicating the superiority of Victory oats, Charlottetown No. 80 barley, and Huron wheat, for this district.

Reliable data on the cost of producing the principal field crops have been accumulated over a period of eight years.

Some very valuable experimental work is being done with different nitrogen-phosphorus and potash-carrying fertilizers in order to determine their relative values, and the optimum rates of application.

The past year was a very satisfactory one in the poultry plant, the average pullet year production of the breeding stock being 205 eggs, as compared with 195 in 1928. A high-grade fish meal fed at the rate of 10 to 15 per cent of the laying mash gave better results than beef meal. Thirty birds in the Nova Scotia Southern Egg Laying Contest qualified for registration.

Bees kept at this Station are used principally in connection with the orchard pollination investigational work.

EXPERIMENTAL STATION, NAPPAN, N.S.

The grass fields came through the winter without any severe injury and the clover and hay crop harvested was about average for this district. The worst feature of the past season was the lack of sufficient moisture during June, July, and August, from which all crops suffered more or less.

Guernseys and Jerseys are the two dairy breeds of cattle represented at this Farm. The foundation herd of Jerseys was purchased two years ago and includes five promising daughters of "Palatine's Observer." Feeding experiments are conducted with both herds, and they also form a medium through which farmers may obtain good foundation breeding stock. There is also an excellent flock of pure-bred Shropshire sheep and a herd of pure-bred Yorkshire swine. In connection with the latter, data are being compiled each year on the cost of production.

Splendid progress has been made in the cereal work at this Farm, the different varieties and strains being tested under the rod-row system.

The field husbandry work includes not only rotation and cultural experiments, but also studies in the cost of producing various farm crops.

Forage crops, being of such vital interest to the farmers of Eastern Canada, received special attention, many different varieties and strains being under test. More than 700 pounds of club root resistant swede seed produced on this Farm in 1929 will be offered for sale to farmers. Marshland improvement work has been in progress during the past four or five years and will be continued.

Particular attention has been given to the selection and production of disease-free stock of Irish Cobbler potatoes by the unit stock selection method, in order to assist growers to obtain a good start with disease-free stock.

Satisfactory progress has been made during the past year in the pedigree breeding work with Barred Rock poultry, with particular attention to the improvement of egg size. Interest in the Egg Laying Contest has been quite keen, particularly on the part of New Brunswick breeders.

The past year was a poor one from a beekeeping standpoint but, even so, the results obtained indicate that a small well-managed apiary on each farm would provide the farmers with a source of revenue which is otherwise lost.

EXPERIMENTAL STATION, FREDERICTON, N.B.

The spring was wet and cold and seeding was not general until the last week in May. Hay and pasture lands benefited greatly from the rainfall in May. Dry weather in July, August and September prevented the spread of potato blight, but decreased the yields of grain and roots. It also dried up the pastures.

Breeding and feeding experiments were carried on with herds of pure-bred Ayrshire and Holstein cattle. Results from an experiment to determine the merits of close-grazing, alternating pastures, and heavy application of nitrogenous fertilizer, indicate that it is possible to maintain the milk flow during the summer months without any supplementary feeding. Iodine fed to pregnant ewes appears to have little, if any, value in this district, judging from the results of tests over a period of three years. Breeding as well as feeding experiments were carried out with a herd of pure-bred Yorkshire swine.

Some very interesting and valuable fertilizer experiments are in progress including one designed to determine the relative merits of different formulae, applied at three different rates per acre, for the potato crop in a three year rotation. Another is to determine the effect on the quality of fruit from nitrate of soda applied at different rates in an apple orchard. The experiments on rationally grazed and fertilized pastures have been modified and extended.

In addition to the usual variety tests of forage crops some corn breeding work is carried on. A number of inbred strains of Twitchell's Pride, which were intercrossed in 1928, are very promising. Inbred strains of Twitchell's Pride have also been crossed with Wisconsin No. 7 with excellent results. Of the alfalfas tested, the variety Medicago Falcata was the hardiest, but Grimm's gave the highest yield and appears to be the best variety for this district.

The following cereal varieties are apparently best adapted to this district: Oats—Victory, Banner, Gold Rain; Wheat—Huron and White Russian; Barley—Charlottetown No. 80 and O.A.C. 21; Beans—Soldier; Peas—Canadian Beauty, Prussian Blue and Chancellor.

Four, five and six year crop rotations are being studied to determine their relative merits, and experiments are in progress to determine the best rates and dates of seeding oats and rates of seeding wheat.

Potato work is confined largely to the production of disease free stock. Breeding work is being carried on with apples in an endeavour to produce a high class winter variety suitable for New Brunswick conditions. Pollination studies with the apple have also been undertaken at the suggestion of the New Brunswick Fruit Growers Association. A comparison was made of clean cultivation versus paper mulching for the production of vegetables. While many of the 18 different kinds of vegetables used in this experiment responded favourably to the use of paper, in most cases the increased yield was not sufficient to offset the cost of the material and the labour involved in the time of planting.

A number of feeding experiments are under way in the poultry plant. In the breeding work efforts are directed not only towards increased egg production but also to increased egg size. In the ninth New Brunswick Egg Laying Contest, seventy-four birds qualified for registration.

EXPERIMENTAL STATION, STE. ANNE DE LA POCATIÈRE, QUE.

The first seeding on well drained land was done on May 10. Weather conditions during June and July favoured the hay crop, and also benefited cereals on well drained land, but on land that was poorly drained the heavy precipitation in July tended to reduce yields. Potatoes and roots yielded above the average, but corn and fruits were poor crops.

A breeding stud of Percheron horses is maintained at this Station, and is headed by the imported stallion "Chacal" whose services are available to breeders at a nominal fee.

There is also an excellent herd of Ayrshire cattle with which breeding and feeding experiments are conducted. During the past year twelve cows in this herd completed official records with an average production of 9,752 pounds of milk testing 4.2 per cent butter-fat. Many herds in the district are now headed by bulls from this herd, the farmers evidently appreciating the value of a real good sire.

Breeding and feeding experiments are also carried on with Leicester sheep and Yorkshire swine. Several of the sows are entered under the scheme of Advanced Registry for Swine.

Three, four and five year crop rotations are under test and a comparison is being made to determine the relative merits of artificially drained versus surface drained land. Many cultural experiments are also in progress, as well as a series of pasture experiments.

The usual variety tests of cereals and forage crops were continued and quantities of Elite Stock seed of the most desirable varieties of cereals for the district were produced.

There was comparatively little winter injury in the orchard, but seasonal conditions were such that it was not possible to effectively control the scab infection and, as a consequence, the quality of the apple crop was impaired. Spraying, fertilizer, thinning and cultural tests were continued. Variety and cultural tests were also carried out with vegetables, strawberries and raspberries.

Tests of fertilizers used singly and in combination, for roots, grain, clover and timothy are also in progress.

The experimental work with flax has attracted considerable attention and there is no doubt whatever that the establishment of a flax mill at this Station has been very largely instrumental in reviving the home-spun linen industry in the district.

Careful breeding, selection and feeding have resulted in a marked improvement in production in the poultry plant. The average production of the fifteen best pullets was 258.5 eggs in 1929 as compared with 123.6 in 1923. In the Egg Laying Contest sixty-nine birds qualified for registration.

Some very interesting and valuable experimental work is in progress in the apiary. Honey production averaged 87 pounds per colony, one colony producing 219 pounds.

EXPERIMENTAL STATION, CAP ROUGE, QUE.

The growing season of 1929 was slightly cooler with a little more precipitation and less sunshine than the average for the past seventeen years. There was a frost free period of 121 days. With the exception of barley, garden peas and grapes, most crops were good.

Experimental work in the breeding, feeding, housing and management of pure-bred French Canadian horses is carried on at the St. Joachim Horse Farm under the direction of the Superintendent of the Cap Rouge Experimental Station towards the development of a race of good dual-purpose animals of an average weight of 1,200 pounds.

At the Cap Rouge Experimental Station there is a very fine herd of pure-bred French-Canadian cattle which has been accredited since 1922. During the past ten years steady improvement has been made through careful line breeding. Three of the four 1929 champions in the 305 day class are in this herd.

A herd of Yorkshire swine is also maintained and work is in progress under the Advanced Registry policy.

A comparison of swede turnips, corn, sunflowers and peas and oats for ensilage, to determine the cost of a ton of dry matter of each of these crops has shown that roots are far too costly for this district. For a crop of silage corn it has been found that autumn ploughing is advantageous.

The Melba, Lobo and McIntosh apples do well in this district and an application of five pounds of nitrate of soda around each tree has given profitable returns. Of the varieties of strawberries tested the Dunlap has given best results. The heaviest yielding vegetables have not always proved the most profitable. Quality and appearance should receive consideration. As the result of many years of experimental work it is now possible to recommend varieties and strains of ornamental plants, shrubs and trees which are suitable for this district.

Oats continue to be the leading cereal in central Quebec, but there is room for expansion in the production of field peas for which there is a good local demand for domestic consumption. Barley also might be grown more extensively particularly for pork production. Wheat does not appear to be a paying crop.

Calculated on a dry matter basis it has been found that roots are an expensive feed, owing to the large amount of manual labour involved. An interesting comparison is being made of corn, sunflowers, peas and oats for silage. Strains of red clover from southern Europe are not hardy enough for central Quebec.

In the poultry plant efforts are being directed chiefly towards the development of a strain of Barred Plymouth Rocks of the highest standard. Experimental work in progress covers breeding, feeding, housing, and management problems.

EXPERIMENTAL STATION, LENNOXVILLE, P.Q.

The season was very favourable for the hay crop and pastures also were good. Grain and roots were average crops but corn was immature when harvested.

Dual-purpose Shorthorns and Jerseys are the two breeds of cattle kept at this Station. These herds are headed respectively by the outstanding yearling bull "Nevalcam Emperor" 191349, and the imported bull "Brampton Poppy's Observer" (imp.)—45654.

Steer feeding tests conducted during the winter included a comparison of finishing steers in the barn versus finishing on pasture.

Breeding and feeding experiments are also carried on with a flock of registered and grade Oxford Down sheep and a herd of Yorkshire swine. Three sows are entered under the Advanced Registry policy for swine.

Rotation, cultural, and fertilizer experiments were continued, the latter including tests of several of the newer synthetic fertilizers. Plans are also being made for a rather extensive pasture improvement experiment.

Work with forage crops includes variety tests, tests of different grain mixtures, as to their suitability for ensilage, and a study of production from combinations of grass and clover mixtures. From the results of some of these experiments, it is quite apparent that certain other grain mixtures will produce as good and in some cases better and just as economical silage as O.P.V.

In addition to the regular variety tests and breeding work with oats and fall wheat, the staff at this Station co-operates with the Quebec Provincial Seed Board in the systematic testing of the principal varieties of cereals, and with the United States Department of Agriculture in the classification of varieties of oats.

Much valuable information has resulted from the co-operative experiments carried on in commercial orchards. Experiments in the production of hardy apple root stocks are also in progress, as well as variety and cultural tests with vegetables, tree and small fruits, ornamental shrubs and flowers.

Experimental results indicate that the soil and climatic conditions in the Eastern Townships are, as a rule, favourable for the production of hemp for fibre.

The past season was a most favourable one for bees, one colony in the Station apiary producing 255.5 pounds of excellent quality honey. The average production per colony was 122.69 pounds.

Breeding and selection work in the poultry plant is directed towards higher production of eggs of standard weight. Some very interesting cost data have been collected over a period of ten years. In the seventh Quebec Western Egg Laying Contest, fifty-five birds qualified for registration.

EXPERIMENTAL STATION, FARNHAM, P.Q.

From the standpoint of tobacco growing, the season of 1929 may be regarded as an average one. Seeding was somewhat delayed and an outbreak of cutworms reduced the tobacco acreage. Cutting and curing were done under favourable weather conditions.

Of the six varieties of cigar binder tobaccos tested for resistance to black root rot, Connecticut Havana 142 A-3-X proved the most resistant and yielded 1,804 pounds per acre. The most susceptible was Connecticut Havana 38, with a yield of 1,127½ pounds to the acre.

A comparison was made of various fertilizers for the tobacco crop, but unfortunately the tests were of necessity carried out on land which had never received any commercial fertilizer and was in poor condition. Other factors also entered into this work and made the results unreliable.

In a test of six cigar-binder varieties, Connecticut Havana 142 A-3-X, C.H. No. 38, and S.F. Brown Havana Seed ranked in the order named as to both quality and yield.

Plots on which the fertilizer was broadcasted produced larger yields than plots on which it was drilled in. This is contrary to the results obtained last year.

Various manures have been tested for tobacco growing and from the results obtained this year, they rank in the following order, in so far as yield is concerned: sheep manure, hen, cow, horse and hog manure. The latter has always produced leaf of poor quality but with that exception there was very little difference in the quality of leaf.

Long and short rotations are under test and the effect of the various crops on tobacco is being studied.

This year the use of paper mulch in the growing of tobacco resulted in an increased yield of only two pounds per acre, which is not sufficient to justify the additional expense.

Formaldehyde was successfully used for the disinfection of tobacco seed beds and a bait of poisoned bran effectively controlled the cut worms.

Results from experiments in topping and suckering cigar tobacco indicate that early bloom is the best stage for topping, and that two suckerings are sufficient.

Eight varieties of tomatoes were tested for canning purposes. The following gave the best results: John Baer S-4-B, Wayshead McDonald, and Bonny

Best. Unfortunately a frost early in September did considerable damage and consequently net returns per acre were low this year. Several varieties of peas obtained from the Experimental Station at Windermere, B.C., were grown this year and rank in the following order as to yield: Director, No. 6, Bruce, Lincoln, No. 42, and Kootenay.

A survey of the district disclosed only light infestations of wild fire disease which were easily controlled. There was an excellent attendance of tobacco growers at the annual field day at the Station.

EXPERIMENTAL STATION, L'ASSOMPTION, QUE.

Excellent progress has been made in the laying out and general preparation of this Farm for experimental work. Some 45,000 feet of tile drain has been laid and over 8,000 feet of ditch has been deepened and cleaned out. In addition some of the old buildings have been renovated and several new structures erected.

The spring season was favourable for the production of tobacco plants and although planting was a little late, and most of the area was poorly drained, very satisfactory yields of well matured leaves were obtained. However, on account of the uneven soil conditions the experimental results obtained this year should be accepted with caution.

A series of experiments has been inaugurated with the object of determining the relative merits of manure and commercial fertilizers, the best sources of nitrogen, phosphoric acid and potash, and the most economical rate of application.

The results of this year's experiments in the use of paper mulch in the growing of tobacco was not very encouraging. The labour involved in laying the paper by hand increased the cost and there was not a proportionate increase either in the quality or yield of the crop.

Experiments are also being conducted to determine the influence of suckering and topping at different stages of growth, and at different heights, on the yield and quality of tobacco.

Nine varieties of cigar binder tobaccos were tested and although they have not all been examined for quality it seems probable that Connecticut Havana No. 38 will be amongst the best if not the best. The highest yielding variety was a resistant strain 142, C3X. The variety Comstock Spanish had somewhat narrower leaves than the C.H. 38 and the varieties resistant to black root rot.

In addition to organizing a field day at the Station for the tobacco growers of the district, the Superintendent and his Assistant also gave a number of lectures on tobacco growing at St. Jacques and L'Assomption.

EXPERIMENTAL STATION, LA FERME, QUE.

There was rather less sunshine and heavier precipitation in 1929 than the average for the past twelve years. Seeding of cereals was completed during the first days of June; growth was regular and crops ripened splendidly. Wheat and oats gave fair yields but barley was below the average. Ensilage, root and garden crops all did well.

The herd of pure-bred and grade Ayrshire cattle at this Station has been accredited for the past five years. As a result of several generations of grading up the herd has now attained a remarkable degree of uniformity and there has been a substantial improvement in milk production. Unfortunately several of the best producers were eliminated from the herd following the serum test for contagious abortion. Breeding work is also carried on with a flock of registered Cheviot sheep. Under the scheme of Advanced Registry for Swine, work is proceeding towards the production of real bacon type hog.

Three, four, five, and six-year crop rotations are under test and cost of production data are recorded. Tests of various fertilizers, alone and in combination, are in progress, as well as a study to determine the value of green crops ploughed under as a soil fertilizer. Surface drainage work has also received considerable attention.

The area devoted to experimental work with forage crops has been rearranged, rectangular $\frac{1}{100}$ -acre plots having been substituted for the old $\frac{1}{80}$ -acre square plots, thus simplifying calculations and facilitating cultivation. In future all experiments will be carried on in quadruplicate.

Experimental work with cereals has clearly indicated that the earlier varieties do best in this district, notably Garnet, Ruby, and Reward wheats; Alaska, Montcalm, and Cartier oats; and O.A.C. 21, Ottawa 60, and Star barley. The improved surface drainage on this area will make it possible to seed cereals earlier in the spring than has been the case in the past.

Flax did very well this year but the hemp crop was practically a failure.

Variety and cultural tests with flowers, small fruits, and vegetables gave very satisfactory results. Strawberries were a particularly good crop. A new site has been located for a trial planting of apple trees on sandy soil. The Station grounds were improved by the planting of trees, hedges, and new ornamental borders.

In the poultry plant the experimental work embraces pedigree breeding, rearing, selection, feeding, and natural and artificial incubation. Excellent progress has been made with the flock of Barred Plymouth Rocks and the demand for day-old chicks is far in excess of the supply. Over a period of five years the average production has increased 107 eggs per bird. Eight of the twelve birds from this flock entered in the Egg Laying Contest at Ste. Anne de la Pocatière qualified for registration, and in the Canadian contest at Ottawa hens from this flock secured second and third places.

EXPERIMENTAL STATION, KAPUSKASING, ONT.

Seeding commenced early in May but, due to inclement weather, was not completed until well into June. With warm weather and ample moisture, crops made excellent growth during July and August, and while some difficulty was experienced in operating the binders, owing to heavy rains early in September, all crops were harvested in excellent condition.

Pure-bred and grade Ayrshire and Shorthorn cattle are kept at this Station. The experimental work consists of a comparison of various feeds, cost of milk production, and cost of rearing to various ages. The value of silage vs. clover hay for milk production is also being studied. There is also a flock of registered Shropshire sheep. Lambing results this year were not quite up to the average, being 1.37 lambs per ewe as compared with an average of 1.54 over an eleven-year period. A number of the best sows in the herd of pure-bred Yorkshires have been entered for advanced registry, and efforts are being made to determine the strains and individuals producing the highest percentage of select bacon hogs.

Field husbandry experiments occupy a large area and, although most of the projects have been in progress for only a comparatively short time, some interesting data have been obtained. The results indicate that, for practically all crops, seeding as early as the condition of the ground will permit is advisable from every standpoint. Open ditches and water furrows have proved of great value in carrying away surface water.

Three standard varieties of garden peas, viz., English Wonder, Thomas Laxton, and Stratagem, have been used in a "distance of planting" experiment. Over a five-year period, the 1-inch spacing has given the largest yield. The

use of mulch paper in growing common vegetables has not resulted in any material increase in yields. The success which has attended the planting of trees, shrubs and hedges, and perennial flowers around the Station grounds is indicative of the possibilities, in this direction, in this section of the country. Work with forage crops included variety tests, dates and methods of seeding experiments, and tests of various mixtures. Alfalfa gives promise of becoming one of the finest hay-producing plants in the north.

Fertilizers, singly and in combination, are being applied to the first crop in a four-year rotation of O.P.V., barley, clover hay, and mixed hay to determine their value.

In the poultry plant it has been found that while the use of electric light has materially increased the production of eggs during the winter months, yet when production over the whole year is considered there is practically no difference. The use of the trap nest is proving an excellent means of selecting and building up a high-producing flock of Barred Plymouth Rocks.

Bees came through the winter with but light losses, but suffered to some extent from the cold, backward weather during the month of May. An average of 134.9 pounds of honey per colony was produced. The greatest gain in one day was 18 pounds. During the year seventy-five queens were reared and successfully mated.

EXPERIMENTAL STATION, HARROW, ONT.

With a backward, cold, wet spring, followed by one of the driest midsummers on record, the yields of tobacco, oats, potatoes, and second and third cuttings of alfalfa were rather low, particularly on the lighter soils.

Tobacco experimental work is a major activity at this Station, and practically all phases of tobacco culture are covered. Various types of tobacco plant beds have been tested over a period of twelve years, the best results having been obtained from the semi-hot, glass-covered type. Fall prepared and steamed beds, apparently, have given as good results as those prepared and steamed in the spring.

The tobacco fertilizer experiments were completely revised in 1929. Wherever possible, the previous fertilizer work was incorporated into the new series. This new series represents twenty-eight treatments in quadruplicate, for flue-cured, Burley and dark-fired tobaccos.

As a rule, the higher rates of application of manure have given better yields of Burley tobacco, but results in 1929 were somewhat contradictory, no doubt partly due to the dry season and also to the fact that the soil has been built up to a state of fertility where it does not respond as well to such treatments. Three, five, seven and nine-year rotations, and plots continuously planted with tobacco, have been tested over a five-year period. The results indicate that three and five-year rotations are better for Burley tobacco on lighter soils. The poorest yields were obtained from the plots continuously planted with tobacco. On the lighter soils, drilling the fertilizer in the row has given better results than broadcasting, although on the heavier soils this latter method has given very good results when slightly increased quantities have been applied.

Continuous planting of flue-cured and dark-fired tobacco has proven impractical if continued over a period of years. Fall manuring and ploughing of grass and clover sods for Burley and Dark tobaccos has proven superior to spring manuring and ploughing over a period of years.

Tests have indicated that lower topping results in better quality leaf with just as high yields, but high priming is also necessary in order to secure heavy bodied leaf in dark tobacco.

Practically all standard varieties of tobacco produced good yields and quality on healthy soil, and four Burley varieties, viz., C.R.B., Standup Resistant, Broadleaf Resistant and one strain from Kentucky, grown in diseased plots have shown resistance to black rootrot.

Results of experiments indicate that a two-cent spread between the buying and selling price is necessary to make winter feeding of steers and hogs profitable.

Three hundred bushels of Banner No. 1 registered oats were produced during the past year, and twenty varieties of wheat and fifteen varieties of oats were tested in rod-row plots.

The cost of producing crops was somewhat higher than usual during the past year, due to the rather light yields obtained. Burley and flue-cured tobaccos were produced at a lower cost in the four-year rotations than on plots where tobacco is planted every year.

Forage crops work included tests of varieties and strains of corn, sugar beets, soy beans and broom corn. The earlier plantings of corn have consistently suffered more damage from the corn borer than rather late plantings, but one strain has been developed which appears to be promising from the standpoint of resistance.

Of the four varieties of early potatoes tested, the Irish Cobbler has given the best results from the standpoint of yield, especially the earlier diggings. Of the thirty varieties and strains of early tomatoes tested to determine their relative merits with respect to earliness, yield and quality, the best results have been obtained with two Alacrity strains. Canning peas, seed beans and sweet corn were also produced.

Six varieties of hemp were tested for seed production. The two best seed yielding varieties were Western C.D. 22 and Chington x Racolta.

EXPERIMENTAL STATION, MORDEN, MAN.

Fruit breeding is being carried on very successfully at this Station, particularly with apples, plums, gooseberries and raspberries. The new plums "Radisson" and "Wilson" are very promising. Nearly one thousand new apple seedlings fruited this year for the first time, and fifty-eight of these are regarded as good prospects. The apple and plum crops were very heavy and sour cherries also did well.

Experiments in the use of Ethylene gas for the ripening of tomatoes, celery, peppers, melons and apples have been undertaken. The usual variety and cultural tests of vegetables were continued and some promising introductions are being brought to the attention of private growers. The use of mulch paper appeared to benefit most of the crops used in the experiment, particularly cucumbers.

Some hundreds of new cross-bred varieties of roses have been produced, and the ornamental grounds attract wide attention. A recent acquisition is a collection of native fruits and ornamental plants gathered in northern Manitoba.

Three select seedling apples, one sandcherry, one laciniati leaved seedling red elder, and a double flowering native pincherry have been named.

The dry season adversely affected the yields of cereals but the grades were excellent. There was hardly any rust injury. In addition to the usual variety tests conducted on the Station, some co-operative experiments were carried on with farmers and Junior Co-operative Seed Growers.

Corn breeding is the principal activity in forage crops work but results this year were disappointing. A considerable quantity of seed of sweet corn was produced. Alfalfa proved its value as a hay crop.

In the five systems of crop rotations under trial particular attention is being given to the control of weeds. Rotation "C" has been effective in checking sow thistle.

Feeding and incubation experiments in the poultry plant have furnished much useful information. Rhode Island Reds are the only breed kept and there is a keen demand for breeding stock.

Honey production was quite good this year. Experiments in the protection of brood chambers, size of hives, swarm control, and wintering were continued.

EXPERIMENTAL FARM, BRANDON, MAN.

Seeding was not general until about April 22 and germination was somewhat delayed by cool weather in the early part of May. In some sections a frost, on June 12, damaged the grain quite extensively. Most crops suffered to some extent from the lack of moisture throughout June, July and August but, generally, the crops sown on well worked summer-fallow threshed out much better than was expected and the grain was of high quality. Late sown barley and oats were poor crops and the corn crop did not mature.

The herd of Dual Purpose Shorthorn cattle at this Farm is fully accredited and free from disease. During the past year, fifteen of the mature cows qualified in Record of Performance. The average milk record for the year was 5,253 pounds of milk, testing 3.83 per cent butter-fat. Feeding tests were conducted to determine the relative value of silage made from mature and immature corn, and of sweet clover silage for milch cows. Breeding and feeding experiments were also carried on with a flock of pure and grade Oxford sheep and a herd of pure-bred Yorkshire swine. Preliminary work towards a scheme of advanced registry was continued.

The excellent flock of Barred Plymouth Rock poultry has been bred from stock of known productive ability. The average pullet year record of the mature hens in the breeding flock is 202 eggs. The very few birds that reacted to the bacillus pullorum test were removed from the flock. In the Ninth Manitoba Egg Laying Contest, conducted at this Farm, one hundred birds qualified for registration. The average production per bird was 189.5 eggs, an increase of 63 eggs per bird over the production in the first contest.

Cost of production data acquired over a period of three years from the regular rotation fields show that the second crop of wheat after summer-fallow gave an average yield of 21 bushels per acre, at a cost of 98 cents per bushel. The first crop of wheat on summer-fallow land yielded 26.2 bushels per acre, at a cost of 88 cents per bushel. Wheat following grass and clover yielded 25.6 bushels per acre, at an average cost of 74 cents per bushel. Experimental results have shown that no advantage is gained by ploughing summer-fallow to a greater depth than from four to six inches. Recent work with commercial fertilizers indicates the advisability of sowing them into the soil close to where the seed is deposited.

The work with cereals includes not only the testing of varieties and strains but also breeding work. Some 200 sixth generation lines of wheat are on hand which have exhibited a very high degree of rust resistance under epidemic conditions. They also appear to be suitable in other agronomic characters. A fair percentage of these have given very satisfactory results in preliminary milling and baking tests conducted at Ottawa. In the wheat breeding work, "Reward" has been used as one parent in all cases, and has been crossed with such varieties as Hope, Marquillo, Ceres and its sister sort, 1656. Several wilt resistant strains of flax have been produced by selection.

Verification tests for elite and registered seed and other tests to determine the varietal mixtures in seed drill samples and commercial samples taken from elevators and overseas cargoes, were carried on.

Some very promising selfed strains of Northwestern Dent corn are ready for increase or hybridization and it is hoped that, from these strains or hybrids, one or more varieties will be obtained which are fairly resistant to late spring

frosts and also to smut. Breeding work is also being carried on with sweet clover and brome. Variety tests and cultural experiments are also in progress with corn, sweet clover, alfalfa, red clover, oats for hay, millets and miscellaneous grasses, to determine their suitability to Manitoba conditions.

Practically all vegetable crops gave fairly good yields. Potatoes grown inside the shelter belts gave from 161 to 367 bushels per acre but, in the open field, only about half an average potato crop was harvested. Plums, crab-apples, currants and raspberries did well but the season was too dry for strawberries.

Co-operative tests of Marquis, Reward, Garnet, Ceres, and Mindum wheats were carried on, at 130 points in the province. The variety Ceres yielded remarkably well this year and graded better than usual.

On the sixteen Illustration Stations supervised from this Farm, the production of seed grain is one of the most important features of the work.

EXPERIMENTAL FARM, INDIAN HEAD, SASK.

As a result of continuous drought throughout the spring and summer, fallow yields in many cases were reduced to half, while stubble crops were almost a complete failure.

Registered Clydesdale horses are kept on this Farm both for work and breeding purposes. There are also two herds of cattle one a beef herd headed by the Browndale bred bull, "Berserker," and the other a dairy herd of Ayrshires. Four females from this latter herd were exhibited at the Regina Summer Exhibition and took five first prizes and two championships. A small flock of Shropshire sheep and a herd of Yorkshire swine are also maintained and with these, breeding and feeding experiments were conducted. With the swine comparative tests are being made with pastures, different concentrates, and methods of housing.

The various crop rotations under test are designed to meet the requirements of the grain and diversified farmer and to provide a study of crop sequence, soil fertility and cost of crop production. The past season being an unusually dry one some interesting facts were brought out in a number of the cultural experiments.

Cereals grown on well prepared summer-fallow did fairly well, but oats and barley on stubble were almost total failures. Further quantities of Elite Stock seed of wheat, oats and barley were produced and test plots were again grown for the C.S.G.A. for the purpose of checking the purity of Elite and Registered seed stocks.

Forage crops came through the winter without any serious injury and alfalfa gave a surprisingly good yield. Sugar beets were fairly satisfactory as to sugar content, but the tonnage per acre was decidedly low. Root crops also gave poor yields.

Except where artificial watering was resorted to the borders, hedges and wind breaks made very poor growth and vegetables were, in many cases, a complete failure. All tree fruits, however, did remarkably well, plums being a particularly heavy crop and the fruit well sized. The apple crop was the largest in the history of the Farm, Saunder's Hybrid Crabs giving particularly heavy yields. Plant breeding studies in disease and insect control, winter storage and winter hardiness, etc., were continued.

White Wyandottes and Light Sussex are the two breeds represented in the poultry plant. Hatching and rearing results were affected by the adverse conditions during spring and summer. In the Tenth Saskatchewan Egg Laying Contest 65 birds qualified for registration. This is the largest number in any one year since the contest was started.

EXPERIMENTAL STATION, ROSTHERN, SASK.

Seeding was done under very favourable conditions, but from the middle of June there was insufficient moisture, with the result that yields of both field and garden crops were below average. The corn, however, was of very high quality.

The herd of Holstein-Friesian cattle at this Station has been regularly tested for tuberculosis since 1920, and for contagious abortion since 1928, without revealing any reactors to that disease. A flock of high grade Leicester and pure bred Suffolk sheep is kept and lambing results during the past year were satisfactory. Nineteen litters of pure bred Yorkshire swine were entered in the Advanced Registry test and a number of feeding experiments were conducted.

Some very interesting and valuable data are being gathered on sequence of crops, cost of production of various crops and relative profits over a long period of years of different rotations. An extensive series of cultural experiments is also in progress.

Satisfactory progress has been made in the fruit breeding work with apples, which was undertaken in 1927. The importance of manure for the vegetable and potato crops was strikingly demonstrated during the past year, the results indicating that well-manured land holds more moisture than unmanured land. Evergreens have done particularly well at this Station, some of them having attained a height of between 20 and 30 feet.

Variety tests of wheat on summer-fallow have been carried on for a period of five years. The three leading varieties are Red Bobs, Garnet and Marquis, ranking in the order named. Victory, Banner and Leader have been the highest yielding varieties of oats on stubble land over a period of six years. Laurel is a promising hullless variety.

Corn and sunflower crops were practically a failure. Roots also were below the average, but fair crops of hay were obtained.

The past year was a very satisfactory one in the Poultry Plant. No bird laying less than 175 two-ounce eggs per year is retained in the flock and many of the hens have laid over 250 two-ounce eggs in their pullet year. The year was an exceptionally poor one for bees.

EXPERIMENTAL STATION, SCOTT, SASK.

Lack of soil moisture, with low temperatures in the early part of the season retarded the growth of wheat. These conditions followed by hot dry weather with high winds in July had the effect of reducing all grain yields. However, the wheat that was harvested was of excellent milling and baking quality.

A herd of dual-purpose Shorthorn cattle is being developed at this Station, and a steady improvement is noticeable in the milk records. The herd has successively passed the tests for tuberculosis and contagious abortion.

Sweet clover fed to steers increased the individual gains by over 50 pounds, but at a valuation of \$10 per ton it would not seem economical to purchase it for steers on a full grain ration.

Rambouillet sheep at this Station have raised a higher percentage of larger lambs to weaning age, and have clipped a heavier fleece of higher quality than either the Shropshire or Cheviot breeds.

Swine feeding tests have shown that frozen wheat is about equal in value, pound for pound, to oats and barley, whether fed alone or in combination.

Straight grain and mixed farming crop rotations are under tests and cost data have been recorded. The advantage of early ploughing for summer-fallow was quite noticeable this year. An application of superphosphate produced an average increase of $5\frac{1}{2}$ bushels of wheat per acre on summer-fallow with five days earlier maturity.

The wheat crop was of good quality, but the early and medium early varieties gave better yields than the later varieties. Oats were a poor crop with short straw and low yields. Over a period of five years Trebi has given the highest yields of barley, but in the tests this year Haanchen was the leading variety.

There was considerable winter killing of forage crops. Seasonal conditions resulted in a low yield of hay; corn was an exceptionally poor crop and sunflowers were not much better. A leading feature of the forage crop work at this Station is the testing of different strains of western rye grass.

Raspberries, strawberries and gooseberries were badly winter killed, but currants came through better in that respect. Work with vegetables has been expanded by the inclusion of mulch paper and commercial fertilizer studies. An avenue of Lodgpole pine trees and new rose and peony beds were planted during the year.

Exceptionally good results were obtained in the poultry plant this year. The number of eggs required per chick when wing banded was only 1.6. A small flock of Mammoth Bronze turkeys has been established.

There were practically no winter losses in the apiary but it was a poor year for the production of nectar. A Bee Day, at which the Provincial Apiarist assisted, was held at the Station on August 9.

EXPERIMENTAL STATION, SWIFT CURRENT, SASK.

The season of 1929 was an exceptionally unfavourable one. High temperatures, strong winds and lack of precipitation combined to reduce the yields of all crops.

The herd of Holstein cattle at this Station is being disposed of and attention is now being directed towards strengthening the dual-purpose Shorthorn herd. Further progress has also been made in the development of a small breeding herd of Yorkshire swine.

Tests and comparisons of various farm implements are featured at this Station. The studies of the combine were expanded and further data were secured on the use of the swather. The usual cultural and rotation experiments were continued.

Small seeders, developed at this Station, were supplied to other Experimental Farms in the Prairie Provinces, as well as to several other institutions. Two small threshers also were constructed and these are under test at the Dominion Rust Research Laboratory, Winnipeg. Tests of varieties, strains and selections of all the common cereals and all forage crops were continued. The effect of the drought was noticeable even in the corn, which is one of the most drought-resistant crops. Of the hay crops, sweet clover did best. A number of native grasses are being tested in comparison with established sorts.

Variety tests of bush and tree fruits, flowers and all the common vegetables were carried on. Notwithstanding the drought, most of the ornamental and shelter belt trees did fairly well.

A flock of Barred Rock poultry is maintained, chiefly as a means of supplying good hatching eggs and breeding stock to farmers who wish to improve the quality of their flocks.

EXPERIMENTAL STATION, LETHBRIDGE, ALTA.

While there was ample precipitation during the months of April, May and the first half of June, the dry hot weather which set in on June 17 and lasted until harvest time dissipated the promise of an unusually abundant grain crop. However, while yields did not come up to earlier expectations the quality of the grain was excellent. The sugar beet crop was good, but the alfalfa crop was lighter than usual owing to shortage of irrigation water in July and August.

In a feeding trial with horses doing heavy work a comparison was made between alfalfa and timothy the results being in favour of alfalfa. Some very good Percheron fillies are being developed.

Steer feeding experiments were conducted to determine the best combination of home grown feeds produced in the irrigated district of Alberta, for fattening this class of cattle.

The quality of the herd of Holstein-Friesian cattle at this Station has continued to improve. The entire herd gave negative reaction to the serum test for contagious abortion.

Breeding work is carried on with the Corriedale and Rambouillet breeds of sheep. Feeding trials were conducted to determine the value of certain feeds and to give information on the rapidity and economy of gains in Rambouillet and Corriedale grade lambs as compared with Shropshire grade lambs. A range flock of ewes was pastured on the Crows Nest Forest Reserve.

Work is in progress in connection with the Advanced Registry Policy for swine, and various types of swine shelters are being studied.

An excellent flock of Barred Plymouth Rocks has been developed through careful pedigree breeding. Two different types of poultry houses are under test and a number of feeding experiments are being carried on. In the Alberta Egg Laying Contest forty-seven birds qualified for registration.

All crops grown on that section of the Station devoted to dry land farming experiments (with the exception of corn grown on blown soil) returned a profit over cost of production. Unusual results were obtained with wheat grown on stubble land; spring ploughed land gave yields comparable with those obtained on summerfallow, and in some cases also a higher yield.

Bulletin 125 N.S., "The Use of Irrigation Water on Farm Crops," was published during the year, giving a full report of this investigation over a period of five years. Commercial fertilizers and barnyard manure are being tested on both dry and irrigated land.

Variety tests constitute the major portion of the experimental work with cereals, both on dry land and under irrigation. Elite stock seed of Marquis, and Early Red Fife wheat was also produced. The possibilities of growing canning peas on irrigated land is being studied in view of the increasing interest in this crop.

Among the forage crops under test particular attention has been given to sugar beets particularly in regard to cultural methods, distance of thinning and dates of seeding.

The usual variety and cultural tests of vegetables, bush fruits and perennial and annual flowers were conducted and some attention was given to the production of vegetable seeds.

Apiary problems, particularly those affecting the beekeepers in southern Alberta are receiving constant attention.

EXPERIMENTAL STATION, LACOMBE, ALTA.

There was very little moisture in the soil in the spring and this followed by an exceedingly dry summer resulted in crop yields varying from complete failure to 75 per cent of the average.

Breeding and experimental work is carried on with pure bred Shire and Clydesdale horses, particular attention being given to the control of joint ill and a study of wintering brood mares and idle horses.

The herds of Aberdeen Angus and Holstein-Friesian cattle are both free from tuberculosis and have been fully accredited for the past five years. With the co-operation of the Health of Animals Branch all the cattle in these herds regardless of age or sex have been subjected to tests for the purpose of gaining

information as to the possibility and practicability of eradicating bovine contagious abortion and allied diseases by means of the agglutination and complement fixation blood tests. Re-actors to this test have been slaughtered and this has interfered to a large extent with the experimental feeding work and with sales of pure bred breeding stock to farmers.

There are also excellent herds of Berkshire, Tamworth and Yorkshire swine. During the past year Yorkshires again led in prolificacy followed by Tamworths and Berkshires in the order named. Various feeding experiments have been carried on and for the fifteen litters tested under the scheme for Advanced Registration it required 373 pounds of meal to produce a gain of 100 pounds. To bring the pigs to market weight required 204.1 days, the daily gain per hog from weaning to slaughter being 1.2 pounds.

White Wyandottes are the only breed of poultry kept and attention is being given to size of egg as well as increased production. All birds retained for breeding purposes have been blood tested for Bacillary White Diarrhoea.

Straight grain growing rotations are being compared with mixed farming rotations and summerfallow substitutes are compared with the bare fallow. Sweet clover is proving an excellent summer-fallow substitute crop where moisture is not too limited and perennial weeds such as couch grass are not a serious problem. It has been found that when the soil is very dry in the fall, spring ploughing gives better results than fall ploughing, but if there is ample moisture fall ploughing will give better results than spring ploughing.

Variety tests of cereals and forage crops were continued as also were the verification plots for the C.S.G.A. Seed of Reward wheat, Banner and Alaska oats was produced and distributed. A comprehensive experiment has been undertaken in which different mineral fertilizers are compared with lime and barnyard manure.

The dry season greatly reduced the yields of vegetables and fruits and the lack of bloom resulted in a honey crop only about one half that of a normal season.

EXPERIMENTAL STATION, WINDERMERE, B.C.

The spring season was normal and crops got away to a good start. However, there was very little precipitation in July and August and frequent irrigations were necessary. Fair crops of all kinds were harvested.

During the past year four high class cows purchased in Eastern Canada were added to the Ayrshire herd at this station. It is pleasing to report that this herd has again successfully passed the T.B. test and also the regular blood tests for contagious abortion. Very good results have been obtained in a grading-up experiment with a Hampshire ram on grade Oxford ewes. Breeding stock from the herd of Yorkshire swine is in constant demand throughout the district.

Seven different crop rotations are under study, and in all of these alfalfa, peas and potatoes have been included, these being the leading crops in the district.

While rod row variety tests of cereals are conducted, the high cost of land and high production costs due to irrigations, prohibit the growth of practically all small grains to any extent.

Two good crops of alfalfa can always be depended upon, and sunflowers are a more reliable silage crop than corn. Experiments are now under way with alfalfa for seed production.

A four-year rotation of oats, clover, potatoes and peas is being followed in an effort to improve the fertility and increase the humus content of the soil, using chemical fertilizers alone, chemical fertilizers with barnyard manure, and chemical fertilizers with a crop ploughed in. Superphosphate has given excellent results and a crop ploughed in materially increases the humus content.

The new garden area is located on a gentle slope which is ideal for irrigation. A considerable amount of transplanting has been done, and a rockery is being established.

Single-comb White Leghorns are the only breed of poultry kept. The extremely dry summer was hard on the birds and production was much below that of the preceding year. It required 2.1 eggs to produce a chicken six weeks old.

It was an exceedingly poor season for bees. The largest yield of extracted honey from one colony was 41 pounds, but the average production was only 27.1 pounds per colony.

EXPERIMENTAL STATION, SUMMERLAND, B.C.

Precipitation during 1929 was much below the average for the past fourteen years, and irrigation water was very scarce during the summer. The fruit crop, however, while somewhat below the average in yield, was well up to the average in quality and the growers received good returns.

Horticulture is a major activity at this Station and some very valuable work has been accomplished, particularly in regard to the problems of fruit picking, handling and storing. The problem of Jonathan breakdown has received considerable attention and advice given to the fruit growers in the Penticton district this season, based entirely on experimental findings accumulated at this Station, proved particularly valuable. Good progress has also been made in the development of hardy root stocks for apples and in the dates of picking experiments with pears, peaches, prunes, etc., in order to obtain maximum maturity and shipping quality.

A start has also been made on some very valuable work in the processing of fruits and vegetables, under the Dehydration Committee of the department. Excellent progress has been made in the breeding and isolation of new and improved strains of vegetables and selected tomato seed of improved strains is now being offered to the growers.

The lawns and ornamental grounds have been further improved and a test garden for roses has been established. Provision has also been made for the testing of herbaceous climbers and many new varieties and species of herbaceous flowers and shrubs have been planted out.

Much useful information has been obtained from the variety and cultural tests with tobacco.

The herd of Jersey cattle at this Station is fully accredited, having successfully passed the regular tests, both for tuberculosis and contagious abortion. Substantial improvement has been made in the average production of this herd during the past year. Swine work is directed towards the development of a true bacon type of hog.

In the poultry plant excellent progress was made in the development of the flock of White Wyandottes. The chicks were raised on clean fresh ground and the flock was blood tested for Bacillary White Diarrhoea. The results were evident in the splendid production records, the hatchability of the eggs, and in the vitality and livability of the chicks.

EXPERIMENTAL FARM, AGASSIZ, B.C.

Precipitation for the whole year 1929 was the lightest ever recorded at this Farm. Fortunately, there was ample precipitation during the spring and early summer to carry the crops through to maturity, and all crops yielded well.

There is an excellent stud of pure-bred Clydesdale horses at this Farm and, with the exception of the four foundation mares, all of them have been bred on the Farm.

It is worthy of record that this Farm, during the past year, was awarded a "Master Breeder's Shield" by the Canadian Holstein-Friesian Association, for having bred twelve XX bulls, twelve Gold Medal cows and twelve Excellent cows in a herd under 80 head. This splendid herd has been developed from six foundation cows. Some interesting feeding experiments are in progress, including a comparison of fish meal versus linseed meal. Different silages are also being compared.

Some valuable additions have been made to the flock of Dorset sheep, and the offspring of one of the rams are particularly promising.

Experimental work is also carried on with a herd of Yorkshire swine and seven sows are entered under the policy of Advanced Registry for swine.

The rod-row system of testing cereals is practised at this Farm and Victory oats and O.A.C. 21 barley have given excellent results.

Forage crops under test include different varieties of ensilage corn, sun-flowers, mangels, carrots, sugar beets, annual hays, and grasses and clovers, alone and in combination. An excellent quality of flax for fibre was also grown and tobacco yielded well.

Many of the variety tests of garden vegetables have been discontinued and greater attention is now being given to more intensive cultural projects and the production of foundation seed. The use of paper mulch appeared to be of benefit to certain vegetable crops, while, in the case of others, there was no apparent improvement from the use of this material. However, the work has not been carried on for a sufficient length of time to warrant definite conclusions.

The flock of Barred Plymouth Rock poultry has an outstanding reputation and it is impossible to fully meet the demand for breeding stock and hatching eggs.

Although production of the Egg Laying Contest was not as high as usual, owing to an outbreak of infectious bronchitis, some creditable records were made, notably that of the pen of White Wyandottes owned by Mr. Caul, of Appledale, B.C. This pen laid 2,592 eggs, scoring the highest of any Wyandotte pen on the continent. Two hundred and forty-three birds qualified for registration, sixteen being in the 300-egg class.

With a view to carrying on more intensive experimental work, the apiary has been increased to sixty colonies of bees. Considerable attention has been given to queen breeding with satisfactory results.

EXPERIMENTAL STATION, SIDNEY, B.C.

The rainfall in 1929 was the lowest on record for Vancouver island. Fortunately there was sufficient moisture in the early part of the season, and hay and grain crops as a result were much above the average. Lack of moisture later in the season seriously affected the root crop and the potatoes. The fruit crop was excellent, the pears being outstanding. Experimental work in breeding, rearing and feeding is carried on with a herd of Jersey cattle. Particular attention has been given to the problem of contagious abortion with the co-operation of the Health of Animals Branch. The whole herd has been subjected to a series of blood tests and all re-acting breeding cows have been removed from the herd and segregated. With the negative herd subjected to periodic tests and no contact with any cattle of unknown history, and with special care in the raising of calves from re-acting cows, it is hoped to develop a clean junior herd. With the success which has attended these efforts to date it is hoped soon to be able to report that contagious abortion on this Station is a thing of the past. Data collected in the course of this work indicates that the condition known as systic ovaries, has no connection with abortion in so far as *B. abortus* is concerned.

Great interest centres around the poultry work in this Station and there is the keenest demand for information regarding breeding, rearing, housing and

feeding problems, particular attention being given to the question of internal parasites and related subjects. The 1929 Egg Laying Contest was outstandingly successful from every standpoint.

While wheat growing is not carried on on an extensive scale on Vancouver Island some remarkably good yields have been obtained. During the past year yields of 45 bushels per acre and more were common. Fall sown oats and barley also did well.

Horticultural work is a major activity on this Station in view of the fact that the great majority of people on the Island are directly or indirectly connected with the industry. Special attention has been given to bulb growing and seed production. Elite registered vegetable seed is produced in quantity and will be available for distribution among seed growers in the near future. The dehydration of fruits and vegetables was undertaken this year for the first time.

EXPERIMENTAL SUBSTATION, BEAVERLODGE, ALTA.

The germination of cereals was uniform but lack of subsoil moisture reduced yields, and weather conditions just before harvest delayed ripening.

Reward wheat yielded 33 bushels 23 pounds per acre, and the field crop graded No. 1 Northern and tested 68 $\frac{3}{4}$ pounds per measured bushel as threshed. It ripened six days earlier than Marquis and one day earlier than Garnet. This last named variety yielded 38 bushels 17 pounds, Marquis 37 bushels, and Early Triumph 39 bushels 9 pounds per acre.

Over a period of eleven years, Banner oats have outyielded Victory by an average of 2 bushels per acre, but this year Victory was the leader by a fairly substantial margin. Premost flax and three varieties of peas all gave larger than average yields, but O.A.C. 21 barley yielded a little below average. Winter grains came through with very little killing.

None of the perennial forage crops were winter-killed but the effect of the lack of subsoil moisture was apparent, the growth in the meadows being very uneven. Yellow-flowered Siberian alfalfa has proven a short cropper in a dry season. Timothy yielded considerably better than red top, orchard grass and Kentucky blue, but was substantially outyielded by Brome and Western rye from the 1927 seeding. Arctic sweet clover, seeded in 1928 without a nurse crop, gave a yield of 3,727 pounds per acre.

Some exceedingly interesting and valuable data are being obtained on the effect of topography upon minimum temperature occurrence.

Particular attention is being given to a study of methods of seeding down meadow crops.

Five varieties of potatoes, Gold Coin, Irish Cobbler, Early Rose, Mitchell's Excelsior, and Bliss Triumph, all responded favourably to an application of 100 pounds of superphosphate per acre, scattered along the open furrow. They bloomed earlier and made more vigorous growth than those untreated but because of this forward development, the earliest variety, Early Rose, matured in advance of the best growing weather, with the result that the yield was 10 bushels less per acre where treated.

At least a hundred species, and a much larger number of varieties of trees and woody ornamentals, have come successfully through one or more winters at this Station. Herbaceous perennials such as peony, iris and rose mallow seem quite hardy. Small fruits again did well in 1929 but annual flowers and vegetables suffered from the drying of the land and the effects of strong winds on the seedlings.

The bees wintered fairly well, both in the cellar and in outdoor packing cases.

EXPERIMENTAL SUB-STATIONS

The Experimental Sub-Stations have continued to provide much useful and interesting data on the agricultural possibilities of the districts in which they are located.

At Fort Vermilion, Alta., seeding was fairly general by April 30th and all seeding and planting was completed during May. Weather conditions hastened the germination of seeds, and pastures and all crops made good growth. Four degrees of frost were recorded on August 25 and immature crops such as beans, corn, sunflowers, and buckwheat were damaged. Fortunately all cereals with the exception of Marquis, Red Fife and Kitchener wheats and Barks barley had been cut previously and these four named varieties were fully matured, so did not suffer any damage. Winter conditions had been hard on the fruit plantations and there was a good deal of root injury to fruits and other garden plants, particularly roses and flowering shrubs. Many of the clovers and less hardy varieties of grasses were totally winter killed. Winter rye also suffered to some extent and winter wheat was a total loss.

A very cold and backward spring season was experienced at the Sub-Station at Fort Smith, N.W.T., but all crops did fairly well. Marquis wheat gave a satisfactory yield but the crop was not fully matured when harvested on August 29. Banner oats did very well and matured. Vegetables also did well on the whole but the potatoes suffered injury from worms.

The cool season experienced at Fort Resolution, N.W.T., retarded plant growth. Nevertheless Canadian blue grass, Golden millet, hullless oats, and Himalayan barley did fairly well and potatoes yielded higher than in the previous year. Of the different kinds of vegetables sown the following did very well: cabbage, Copenhagen Market and Danish Ballhead; carrots, Chantenay, and Guerande; beets, Extra Early Egyptian and Crossby; turnips, Purple Hop Milan, Kangaroo, Purple Top, and Jumbo. Tomatoes, gave an abundance of fruit but did not ripen. There was good display of bloom in the flower garden from late summer until October 15.

At Fort Providence, N.W.T., potatoes planted late in May derived great benefit from the rains in June. They made excellent growth and yielded quite well. Carrots, beets, turnips and onions were poor but cabbage and lettuce did exceedingly well. Oats made better growth than in previous years a portion of the crop being used for green feed and the rest for poultry feed.

The most northerly Sub-Station is at Fort Good Hope, N.W.T., situated at 66° 15' 12" northern latitude and 128° 49' western longitude, quite close to the Arctic Circle. Wheat, oats and barley sown on May 11 matured and were harvested between August 22 and 24. Various forage crops also were tested in small plots with fair results. Potatoes gave a return of about five for one. Carrots, parsnips, and cabbage did quite well. Beans and peas also made a good showing but corn was destroyed by frost on August 24.

The experimental area at Betsiamits, P.Q. is located on low wet land and this combined with a cold wet season resulted in the practical failure of all cereals. Most of the vegetables also did poorly.

DAIRY AND COLD STORAGE BRANCH

GENERAL

The activities of the Dairy and Cold Storage Branch have followed the same general lines as in recent years.

The Research Division has dealt with some new defects in cheese, and has been able, as the result of investigations, to suggest positive remedies.

The staff of dairy produce graders was brought up to a full complement at the beginning of the year.

A reference to the tables below will show that the percentage of first grade cheese was practically the same as in 1928, in spite of the fact that the season of 1929 was a more difficult one for the cheesemaker than the preceding one.

The percentage of first grade butter was 3.25 per cent lower than it was in 1928. This apparent falling off in quality loses its significance when it is noted that there were 120,718 more packages graded than in 1928, which means that butter was graded from a number of creameries for the first time. Less than 25 per cent of the butter produced in Canada is offered for grading. Butter put up in one-pound packages at the creamery is not graded. It is only when butter is to be exported in solid pack that grading is compulsory.

The Cold Storage Division had some activity in connection with the erection and completion of the Pacific Coast Terminals (cold storage) at New Westminster, B.C., and The Nova Scotia Fish and Storage Terminal at Halifax, N.S., both of which are receiving a subsidy under the provisions of the Cold Storage Act. These two establishments are very complete and up-to-date in every respect, and they make notable additions to cold storage facilities in Canada.

PRODUCTION

The unfavourable weather and feed conditions in 1929 resulted in a decrease in cheese production, according to the preliminary statement published by the Dominion Bureau of Statistics, of 25,000,000 pounds of cheese. The same statement shows a decrease of 4,554,367 pounds in creamery butter.

The following table gives the production of factory cheese and creamery butter, by provinces, for the calendar years 1928 and 1929. The figures for 1929 are preliminary and may be somewhat revised when final returns are available. The decrease is emphasized by the fact, that taking Canada as a whole, the season of 1928 was above the average for production.

BUTTER

Province	1929	1928	Per cent Increase	Per cent Decrease
	lbs.	lbs.		
Prince Edward Island.....	1,929,987	2,036,838		5.2
Nova Scotia.....	4,254,379	4,479,276		5.0
New Brunswick.....	1,850,768	2,091,723		11.5
Quebec.....	57,569,163	52,526,248	0.9	
Ontario.....	57,000,000	63,733,187		10.5
Manitoba.....	15,472,109	13,782,167	12.2	
Saskatchewan.....	14,780,000	11,310,496	30.6	
Alberta.....	16,025,000	14,375,636	11.4	
British Columbia.....	3,700,000	3,691,468	0.2	
Total.....	172,581,406	168,027,039	2.7	

CHEESE

Prince Edward Island.....	1,391,742	1,710,943		18.7
Nova Scotia.....	18,867	25,230		25.1
New Brunswick.....	582,268	697,811		16.5
Quebec.....	35,157,871	45,183,970		22.1
Ontario.....	80,200,000	95,561,895		16.4
Manitoba.....	559,286	477,419	17.1	
Saskatchewan.....	145,000	148,215		2.1
Alberta.....	975,000	722,048	35.0	
British Columbia.....	55,000	57,088		3.6
Total.....	119,085,034	144,584,619		17.6

THE EXPORT TRADE

There was no regular export of butter to the United Kingdom during 1929, but shipments to Newfoundland, Bermuda, Bahamas, British West Indies, British Honduras and British Guiana, have been continued and increased in some cases during the year under review. The new trade agreement has promoted the trade in dairy produce from Canada so far as the West Indies are concerned.

The exports of cream to the United States show a decrease for the year ended March 31, 1930, of 568,000 gallons as compared with the previous fiscal year. There was also a decrease of 711,274 gallons of milk in the exports to the same market.

The total exports of cheese (91,719,200 pounds) during the year reached the lowest figure since 1889.

GRADING OF BUTTER AND CHEESE

The details of the gradings will be found in the following tables. The different provinces show some variation in the percentage of first grade cheese and butter. There is even greater variation between districts or counties. The cheese produced in the counties of Oxford and Middlesex, Ontario, averaged over 98 per cent first grade. A number of cheese factories had 100 per cent first grade.

FEDERAL BUTTER AND CHEESE GRADING 1929. COMPARISON WITH 1928

PASTEURIZED BUTTER

Province	1929					1928				
	Packages	Spl.	1st	2nd	3rd	Packages	Spl.	1st	2nd	3rd
		%	%	%	%		%	%	%	%
Prince Edward Island.....	5,322	2.8	96.6	0.1	0.5	7,613	0.7	98.8	0.4	0.1
Nova Scotia.....	373	.....	85.0	.....	15.0	250	.....	100.0	.....	.....
New Brunswick.....	34	.....	100.0	.....	.....	.....	.....	.....	.....	.....
Quebec.....	296,366	0.69	89.41	9.31	0.59	293,754	0.1	90.7	8.8	0.4
Ontario.....	71,038	.....	60.89	30.80	2.31	59,744	.....	78.8	20.3	0.9
Manitoba.....	172,883	0.13	72.93	21.01	5.93	146,769	0.2	72.4	20.5	6.9
Saskatchewan.....	171,745	0.10	66.01	19.90	13.99	91,472	0.2	61.9	23.9	14.0
Alberta.....	80,569	0.43	70.12	20.31	9.14	59,162	1.1	69.3	22.9	6.7
British Columbia.....	229	.....	14.0	35.8	50.2	4,381	6.6	63.2	22.3	7.9
Totals.....	798,559	.....	.....	.....	.....	663,145	.....	.....	.....	.....
Average percentage.....	.....	0.37	76.35	17.62	5.66	.....	0.2	79.6	15.8	4.4
Packages by grades.....	.....	2,938	609,712	140,673	45,236	.....	1,744	527,865	104,596	28,940

UNPASTEURIZED BUTTER

Province	1929				1928			
	Packages	1st	2nd	3rd	Packages	1st	2nd	3rd
		%	%	%		%	%	%
Prince Edward Island.....	.....	.....	.....	.....	.....	.....	.....	.....
Nova Scotia.....	.....	.....	.....	.....	.....	.....	.....	.....
New Brunswick.....	201	19.4	47.3	33.3	114	.....	97.4	2.6
Quebec.....	40,794	73.10	25.59	1.31	59,116	67.5	30.9	1.6
Ontario.....	6,515	20.94	69.56	9.50	3,295	22.3	75.5	2.2
Manitoba.....	528	.....	89.96	10.04	.....	.....	.....	.....
Saskatchewan.....	40	.....	35.0	65.0	88	35.2	64.8	.....
Alberta.....	11	.....	18.2	81.8	98	21.4	67.4	11.2
British Columbia.....	.....	.....	.....	.....	74	.....	14.9	85.1
Totals.....	48,089	.....	.....	.....	62,785	.....	.....	.....
Average percentage.....	.....	64.93	32.35	2.72	.....	64.8	33.5	1.7
Packages by grades.....	.....	31,223	15,557	1,309	.....	40,666	21,028	1,091

CHEESE

Province	1929				1928			
	No. Boxes	Spl. & 1st	2nd	3rd	No. Boxes	Spl. & 1st	2nd	3rd
		%	%	%		%	%	%
Prince Edward Island.....	15,378	97.07	2.89	0.04	17,169	94.9	4.6	0.5
Nova Scotia.....	489	68.7	23.7	7.6	253	9.1	66.0	24.9
New Brunswick.....	381,763	86.34	12.68	0.98	506,533	85.88	13.18	0.94
Quebec.....	875,022	95.49	4.07	0.44	1,041,876	96.7	2.9	0.4
Ontario.....	1,222	95.99	3.60	0.41	1,374	82.2	16.9	0.9
Manitoba.....								
Saskatchewan.....								
Alberta.....								
British Columbia.....								
Totals.....	1,273,874				1,567,205			
Average percentage.....		92.76	6.64	0.60		93.1	6.3	0.6
Boxes by grades.....		1,181,610	84,590	7,674		1,459,843	98,784	8,587

ICED CAR SERVICE

The arrangement with the different railway companies which provides for iced cars on certain routes leading to Toronto, Montreal, Quebec, and Halifax, for the carriage of butter, eggs, and cheese in less than carload quantities, operating on a regular weekly or fortnightly schedule was continued during the year.

REFRIGERATOR CAR INSPECTION

The refrigerator cars operating under agreement between the Department and the railways are inspected on arrival at the terminals. The condition of the car, the quantity of ice in the bunkers, temperature of contents, etc., are noted. Any defects in the service are at once reported to the proper authorities.

CARGO INSPECTION

The cargo inspection service at Montreal, Halifax, and Vancouver, and also at ports in the United Kingdom was again in operation throughout the year. The inspectors take note of the condition of packages and contents, take the temperature of certain products and make a record as to the position in which these products are stored in ships as loaded at the various ports. Recording thermometers are placed in the various cold storage chambers or with any cargo of perishable nature carried in ordinary stowage. The charts are removed from these instruments by the inspectors at United Kingdom ports, who return them to Ottawa where they are blue printed and copies distributed to interested shippers, to the shipping companies and the Board of Trade at Montreal.

Inspectors report a great improvement in the condition of cheese shipments, as regards packages, since the regulations under Part 1 of the Dairy Industry Act requiring all cheese packages to be re-enforced with wire or strapping became effective on the 1st of June, 1929.

The department lost through death the services of Mr. P. J. Gabler, who had been Cargo Inspector at Liverpool, England, since January, 1914.

SUBSIDIES UNDER THE COLD STORAGE ACT

INSTALMENTS PAID YEAR ENDED MARCH 31, 1930

	Amount	Number of Instalment
Chicoutimi, P.Q.— Eloi Cote.....	\$	
Halifax, N.S.— N. S. Public Fish & C. S. Terminals, Ltd.....	480 00	3rd
Moncton, N.B. (building not yet completed)— Moncton Cold & General Storage Ltd.....	303,750 00	1st
New Westminster, B.C.— Pacific Coast Terminals Ltd.....	135,000 00	1st
Riviere-du-Loup, P.Q.— Joseph Alfred Landry.....	500 00	3rd
Stellarton, N.S.— Pictou County Dairy Co. Ltd.....	3,292 95	2nd
Toronto, Ont.— United Farmers Co-operative Co. Ltd.....	1,732 00	4th
	444,754 95	

CREAMERY COLD STORAGE BONUSES

Number of applications received 1929-30.....	29	
Number of applications held over 1928-29.....	5	34
Number of bonuses (\$100) paid 1929-30.....	20	
Number of applications held over 1930-31.....	2	
Number of applications held until necessary alterations are finished.....	9	
Number of applications refused 1929-30.....	3	34

DIVISION OF DAIRY RESEARCH

Investigational work commenced by the Division of Dairy Research on a colour defect in cheddar cheese was completed in December, 1929. Through bacteriological and biochemical studies factors responsible for the defect were established. The results of this investigation have been put into the hands of all cheesemakers and have been extremely effective in overcoming this particular colour defect in cheese. A complete report was published in Bulletin No. 128, N.S., Department of Agriculture, entitled "A Colour Defect of Cheddar Cheese".

A second type of discoloration in cheddar cheese has also been investigated. The cause of this defect was found to be due to metallic contamination, details of which were published in Scientific Agriculture, Vol. X, No. 8, April, 1930, under the title of "A Case of Metallic Discoloration of Cheddar Cheese".

During the year a study was commenced on bitter flavour in pasturized milk. An organism, hitherto undescribed, has been isolated. Further studies are under way in the hope of obtaining information which will assist in controlling such organisms in commercial milk plants.

For the purpose of standardizing the microbiological technique of butter, co-operative work has been continued under the American Dairy Science Association Committee.

The Division of Dairy Research has been requested by the Western Canada Buttermakers to assist in establishing a standard butter colour chart. Some work has already been done on this problem.

As in other years, the Division has assisted in inaugurating and conducting milk and cream competitions in conjunction with Provincial and Convention exhibits.

The usual assistance has been given on mould and yeast work. Numerous bacteriological and chemical tests were made on samples submitted to the laboratory, namely, well water, butter, cheese, milk, condensed and evaporated milk, and milk powder.

Articles have been contributed to the Agricultural press and dairy magazines. A number of papers have been read and addresses given at the various dairy conventions and clubs throughout the country.

MILK UTILIZATION SERVICE

Exhibits.—Exhibits were arranged at several centres—Hamilton, Ont.; Canadian National Exhibition (Toronto); Royal Winter Fair (Toronto); St. John, N.B.; International Congress of Nurses (Montreal); Fédération des Oeuvres Sociales de Santé (Montreal); Sherbrooke, P.Q.; Three Rivers, P.Q.; and other places.

In addition, a great deal of material was loaned to teachers, nurses, and provincial officials for use at fairs, school fairs, clinics, etc.

Lantern slides, films, posters and equipment for the playlet have been in constant demand by health workers.

Publications.—It is proposed to publish another poster, in French and in English, for use in schools. This will be distributed free to teachers and nurses.

It has been necessary to have reprints of all the publications of this Service, including the book cover and the poster issued for use at Mothers' Clubs, clinics, and in schools. A bulletin on the Care of Milk in the Home is now being prepared. Stories and articles for school use are sent out in mimeographed form and this series will be added to.

Addresses.—Addresses were given to the teachers-in-training in Normal schools in the various provinces.

Talks were given in different schools and clubs upon request.

Lectures and demonstrations in co-operation with Women's Institutes and other women's organizations are being arranged.

Conventions.—A number of conventions and conferences such as arranged by the Women's Institutes, teachers, International Congress of Nurses, etc., were attended and the work of this Service explained and the material published brought to the attention of the members.

Articles.—Many articles relating to the work were prepared and published by different newspapers and magazines.

This service is conducted to promote knowledge of the nutritive value of milk and milk products. The officers carrying on this Service work in conjunction with Health and Child Welfare organizations. Publications regarding the uses of milk and milk products are widely distributed and information is disseminated through booths and demonstrations at the principal fairs, school fairs, educational trains, lectures, etc.

Miss Helen G. Campbell, who has been in direct charge of this work since its inception, has resigned to accept a more highly paid position with a large publishing company. Miss Campbell was exceptionally well qualified for such work and her resignation was received with much regret.

THE ADMINISTRATION OF THE DAIRY INDUSTRY ACT, PART I, FISCAL YEAR 1929-30

The staff engaged in the administration of the Dairy Industry Act, Part I, included one chief inspector, six full time inspectors and four part time inspectors. The more important provisions of the Act are those prohibiting the manufacturing and sale of

- (a) Substitute for butter manufactured wholly or in part from fat other than that of milk or cream;

- (b) Butter containing more than 16 per cent of water;
- (c) Butter or cheese containing less than the specified minimum of milk fat;
- (d) Butter in prints of improper weight;
- (e) Butter or cheese which is falsely or improperly branded.

Inspectors make preliminary tests for water content of samples of butter secured from manufacturers, wholesalers and retailers. Samples which, according to the preliminary tests, show more than sixteen per cent of water as well as samples of butter or cheese suspected of being adulterated by means of foreign fat or of containing less than the legal minimum of fat are submitted for chemical analyses. There were 9,513 preliminary tests of samples of butter made during the year of which 1,187 samples showed more than 16 per cent of water.

The following statement shows the number of convictions secured on account of various offences and amounts of fines imposed:—

Offence	Number of convictions	Fines
		\$
Excess water in butter.....	119	2,220 75
Butter deficient in fat.....	2	20 00
Short weight prints of butter.....	7	105 00
Butter substitute or artificial butter.....	13	3,605 00
Having cocoanut fat on premises of creamery.....	1	200 00
Selling skim-milk cheese without displaying the placard.....	1	15 00
Incorporating inferior curd in cheese.....	1	10 00
Total.....	144	6,175 75

Convictions secured during the year show an increase of fifty-three, and fines an increase of \$3,097.45 as compared with the previous year.

The authority conferred by the Act to seize and confiscate illegal dairy products or equipment used in the manufacture or manipulation of illegal dairy products is only exercised in extreme cases. Following is a statement of such confiscation of butter showing the number of confiscations on account of different offences, the number of pounds so confiscated and the proceeds from the disposal of the same.

Offence	Number of confiscations	Number of pounds confiscated	Net proceeds
			\$
Butter substitute containing fat other than milk fat.....	4	2,940	866 61
Part of equipment used in manufacturing.....	1	Feed Boiler	3 00
			869 61

The proceeds from fines imposed and from sale of confiscated products have been remitted to the accountant.

HEALTH OF ANIMALS BRANCH

This Branch is employed in preventing the introduction of animal diseases from foreign countries, maintaining the health of our own live stock and safeguarding our foreign markets and export meat trade. Research work on the problems of contagious disease is constantly in progress with a view to improvement in methods of control. The three divisions of this Branch work in close co-operation.

CONTAGIOUS DISEASES DIVISION

The officers of this Division are concerned with the prevention of entry into Canada of diseases of animals from other countries and the control and eradication of contagious disease within our own borders.

The prevalence of serious contagious diseases in many countries throughout the world necessitates constant vigilance and the enforcement of restrictive measures for the protection of our live stock industry.

Foot and mouth disease has continued to be prevalent over practically the whole of the continent of Europe and due to the elusive character of this infection it is evident that the strictest precautions must be continued to ensure exclusion of this disease. Foot and mouth disease has never gained entrance into Canadian herds and our protective measures are enforced to maintain this fine record.

On April 23, 1929, an order was issued prohibiting the importation of

- (1) Manure and fertilizers containing animal products.
- (2) Bone meal and foodstuffs containing animal matter.
- (3) Second hand or previously used bags from all countries with the exception of direct shipments from Northern Ireland, Irish Free State, Australia, New Zealand, Union of South Africa, the United States of America and Japan, and shipments of bone meal from specially approved premises in Great Britain.

On May 18 an order was issued removing the restrictions against importations from California, Oregon, Nevada, Arizona in the United States and Lower California and Sonora in Mexico, which had been imposed following an outbreak of foot and mouth disease near Los Angeles, California, in January, 1929.

Due to an outbreak of foot and mouth disease in Scotland an order was issued on September 9, 1929, cancelling permits for the importation of ruminants and swine from that country. As, however, no outbreaks of this disease had occurred in England or Scotland for a period of sixty days permits for the importation of cattle and sheep were issued after March 8, 1930.

On September 28, 1929, an order was issued prohibiting

- (1) The bringing into any port in the Dominion of Canada of any cattle, sheep, goats and other ruminants and swine for any purpose including those carried as "ships stores" except and unless the master of the vessel has in his possession the necessary permit issued before the animals were embarked.
- (2) The landing or discharging of manure, garbage and refuse in Canadian ports and waters from ships sailing from other countries.

On October 10, 1929, an order was issued restricting the importation of mill-feeds and grains into Canada. This order was cancelled and another issued on December 19 which came in force on and after January 1, 1930, requiring certification by British Consular officers or in countries where there are no British Consular officers by officials designated by the Government concerned whose names have been received by this Department and in the case of United States by an official of the United States Department of Agriculture.

The following changes were made in the list of ports through which animals subject to inspection only are permitted to enter Canada.

On April 8, 1929, the port of entry Beauceville, P.Q., was removed from the list.

On September 13, 1929, Beebe Junction, P.Q., was closed and Rock Island, P.Q., was established as a port of entry in its stead.

On February 26, 1930, St. Camille, P.Q., was closed and Lac Frontière, P.Q., established as a port of entry.

As some misunderstanding had arisen as to the sheep and goats which were permitted entry from the United States on certificate under Ministerial Order of June 11, 1927, another order was issued on March 13, 1930, in which section (b) was changed to clearly indicate that only pure-bred registered sheep and goats for breeding purposes were permitted entry under section (b) of this order.

There have been no serious outbreaks of contagious disease in Canada during the year.

Glanders.—Three small outbreaks occurred in Quebec in which eight horses were slaughtered and one outbreak in Saskatchewan which required the slaughter of eighteen horses. No glanders was reported in any of the other provinces. This disease is controlled by a policy of slaughter of infected animals and payment of compensation.

Hog Cholera.—No extensive outbreak of this disease has occurred although the disease was detected in Quebec, Ontario and British Columbia. Hog cholera is controlled by a policy of slaughter of infected hogs and payment of compensation and the use of anti-hog cholera serum to immunize all swine in close proximity to infected premises.

Mange.—Fewer outbreaks of mange in cattle have occurred and only limited outbreaks have been reported in Ontario, Manitoba, Saskatchewan and Alberta. The number of cattle involved as contacts are comparatively few.

Mange in horses has been reported only in New Brunswick.

Sheep Scab.—No case of sheep scab has been reported in the Dominion for the past two years.

Anthrax.—Three cases of anthrax were confirmed in Ontario and one outbreak occurred in Quebec. This disease is not prevalent in Canada and care is taken to prevent its introduction by means of hides, wool and hair from infected countries. These, unless properly certified, only enter under restrictions to be disinfected at destination.

Dourine.—No case of this disease has been detected in Canada during the past ten years.

Rabies.—This disease has occurred only in Quebec and Ontario. It has been controlled by individual quarantines placed on all contacts and possible contacts and it has not been necessary to quarantine any area. In all outbreaks the co-operation of municipal councils is sought with a view to having local by-laws passed and enforced restricting the movement of dogs.

Tuberculosis.—Considerable progress is being made in the control of tuberculosis. The demand for the tuberculin test of cattle under our different policies is greater than can be promptly met and our progress is limited by the number of veterinary inspectors available and the expenditure incurred.

Accredited Herds.—There are 4,653 fully accredited herds in Canada; 1,295 herds are undergoing accreditation and 149 are awaiting test.

Supervised Herds.—There are 1,530 herds tested under this plan. Stock-owners who cannot comply with the requirements of the accredited herd plan can take advantage of the supervised herd plan but no compensation is paid for reacting cattle. When a restricted area is established supervised herds are absorbed under the restricted area plan.

Municipal Tuberculosis Order.—Supervision is still maintained over the herds supplying milk to twenty-seven municipalities under this order, but no new municipalities have been accepted since October, 1923. Two municipalities have been included in restricted areas and one has been dropped from the list as the municipality did not enforce its by-law.

Restricted Areas.—The advantage of testing all cattle in areas established for the eradication of bovine tuberculosis is recognized by live stock men and

the area plan continues to gain favour. This plan is the most practical and economic method of controlling tuberculosis as the greatest number of cattle can be tested and permanent progress can be made because all cattle within the area are under supervision. The shipment of reactors in car lots can be arranged more cheaply and so the expense to the owner is reduced.

More effective control can be maintained over the cattle in areas as the movement of cattle into an area is governed by regulations. The owner has a greater feeling of security with the knowledge that all his neighbours' cattle have also been tested. Breeding operations are facilitated between herds of equal health status and the services of valuable herd sires become available with a tendency to eliminate the scrub bull.

All cattle for entry into restricted areas, except those for immediate slaughter on approved premises, must be accompanied by a satisfactory tuberculin test chart.

The cattle in the following new areas have been tested during the past year:—

An extension of the Last Mountain area in Saskatchewan in which 16,674 cattle were tested with 1.2 per cent of reactors.

The municipality of Portage la Prairie in Manitoba had 11,076 cattle with 7.2 per cent of infection.

The municipality of Stanley, also in Manitoba, with 8,385 cattle had only 2.5 per cent of tuberculosis.

Progress in the area in Ontario bounded by the St. Lawrence river, the Ottawa river and Rideau canal is being made and the counties of Prescott and Glengarry are nearly completed. In Prescott 26,752 cattle tested had 3.58 per cent of reactors while in Glengarry 23,161 cattle had 4.1 per cent of reactors.

In Quebec the Montreal Island area in which 12,245 cattle were tested had 21.2 per cent reactors.

The initial test on cattle in that portion of Richmond county west of the St. Francis river which is included in a restricted area has been completed; 8,123 cattle tested had 20.0 per cent of reactors. The cattle in small areas in the southern portions of the counties of Drummond and Bagot have been tested. In Drummond 2,149 cattle had 12.1 per cent of infection and in Bagot 818 cattle tested with 5.6 per cent of reactors.

Retests have been conducted on the cattle in the following areas:—

Fraser Valley area in British Columbia with over 51,000 cattle. Infection has now been reduced to 0.37 per cent.

The Last Mountain area in Saskatchewan with 18,150 cattle had only 0.04 per cent of infection.

The Carman area in Manitoba had 19,406 cattle retested with 1.2 per cent reactors.

In Quebec the retests of the Huntingdon area with 62,545 cattle show infection has been reduced to 0.4 per cent. The Huntingdon Extension with 49,810 cattle has been reduced to 1.4 per cent of infection. The counties of Mississquoi, Iberville and Brome with 62,626 cattle had tuberculosis reduced to 0.85 per cent, while the counties of Rouville, Shefford and portions of Stanstead and Sherbrooke west of the St. Francis river with over 57,000 cattle tested was reduced to 0.83.

All cattle in the province of Prince Edward Island (96,554) were retested and only 0.15 per cent of tuberculosis found.

Infectious Abortion of Cattle.—Only twenty-six herds have taken advantage of the assistance offered by the Department in conducting blood tests of herds. The owner is required to sign an agreement that no cattle reacting to the blood test for infectious abortion may be disposed of except for slaughter.

unless the purchaser is aware that the animal is a reactor to the blood test for abortion. The owner is required to employ a veterinarian to take specimens of blood from his cattle and forward them to one of our laboratories for test.

Inspection of Stock Cars and Yards.—Inspectors are maintained at thirty-one railway centres and all stock cars arriving at or passing through these points are disinfected unless they show evidence of having been so treated. The cleansing and disinfection of stockyards and stock cars is carried out under the supervision of inspectors. Cars which have conveyed hides, wool or other products under restrictions are cleansed and disinfected under supervision before being used for any other purpose. Only approved disinfectants in proper strength of solution are used in this work.

PATHOLOGICAL DIVISION

ANIMAL DISEASES RESEARCH INSTITUTE

Research activities and routine laboratory services have continued to multiply throughout the Division and have made satisfactory progress.

Contributions from the Animal Diseases Research Institute, especially those relating to tuberculosis, brucelliasis (infectious abortion, undulant fever) and problems of major importance are receiving recognition and attracting wide attention.

It is gratifying to report that scientists and health officials from Great Britain, the Dominions, and many foreign countries are visiting our laboratories to confer with our research officers on problems of universal interest and importance. The close relationship between many animal and human infections is better recognized and understood; contacts between workers, exchanges and bureaux of scientific information and lines of co-operation have been established; and with the application of modern methods of research will lead to new knowledge and progress in the development of disease prevention.

TUBERCULOSIS RESEARCH

The tubercle bacillus, in its many varieties and intermediary forms and in its biology and evolution in the different mammalian and avian species, offers an unlimited field of research. Tolerance, immunity and prophylactic vaccination, sources of infection, transmission, diagnosis and prevention are problems requiring continuous study and experimentation.

"B.C.G." Vaccination.—Prophylactic vaccination against bovine tuberculosis by means of BCG as advocated by the Pasteur Institute, France, has continued as a major study since 1924. The department has co-operated with the National Research Council and other institutions in Canada in this important investigation. Our own experiments involve approximately 200 head of cattle. Several interim reports have been published, as the work progressed; a final report cannot be made until a sufficient number of the experimental animals, vaccinated as calves, have reached maturity. Nevertheless, the experimental evidence so far obtained is distinctly unfavourable. The majority of the animals killed at different stages of the investigation have shown evidence of tuberculosis infection to a varying degree; and the animals which appeared to enjoy a temporary resistance to progressive disease are proving, for the most part, to be carriers and spreaders of virulent infection. With the knowledge at present available BCG vaccination of cattle could not be justified in Canada, and, in fact, is distinctly contra-indicated.

Avian Tuberculosis.—The study of avian varieties of tubercle bacilli and the forms of tuberculosis which they are capable of producing in poultry, swine and other animals is continuing. The problem is a very involved one, the

type, pathogenicity and virulence of the different strains of tubercle bacilli, as well as the susceptibility in different mammalian and avian species, varying very widely. The discovery made at our Institute that the common crow is a frequent carrier of tubercle bacilli pathogenic for poultry, swine and other animals, has considerable significance as regards sources of infection.

BOVINE INFECTIOUS ABORTION

Herd owners desiring to build up a herd free from abortion infection, under certain conditions and a special form of agreement, can now have their animals tested. Under the plans advocated, satisfactory results have been obtained on the Dominion Experimental Farms where the methods were first tried out.

It cannot be expected that the measures necessary to free a herd from abortion infection can be applied without inconvenience and in some cases considerable loss and expense. However, it is becoming recognized that without the intelligent application of control measures the losses are apt to be so great as to make cattle raising unprofitable.

Applications received for herd testing are increasing rapidly, and it is evident that stock owners are prepared to go to some sacrifice in order to maintain their herds free from this infection.

An increasing number of cases of Undulant Fever in man are being traced to cattle as the source of infection.

Our experimental studies have shown that the udder is the principal reservoir of infection in the bovine animal, and that the milk from reacting animals is the dangerous source of dissemination.

SWAMP FEVER OF HORSES (INFECTIOUS EQUINE ANAEMIA) IN THE WESTERN PROVINCES

This disease is principally confined to certain districts in the western provinces. Although death frequently results from swamp fever infection, many horses recover from it, but retain the virus in their systems for indefinite periods and thus act as reservoirs and sources of infection which serve to perpetuate the disease. The studies and experiments carried on at the Research Station, Lethbridge, Alta., since 1912, have furnished much valuable information, but the true nature of the virus and its natural mode of transmission from animal to animal is still unknown.

Further efforts and an intensive study are now recommencing and plans are under way to establish a field experiment station in one of the typical swamp fever areas where investigations will be conducted this coming Season with the object of determining the cause and mode of transmission and developing an efficient method of control and preventive treatment.

"RED WATER" OF CATTLE (BOVINE HAEMETURIA) IN BRITISH COLUMBIA

Further investigation of "Red Water" disease of cattle in British Columbia has been undertaken by the Pathological Division (Health of Animals Branch) and the Chemical Division (Experimental Farms Branch), working in co-operation.

A detailed survey of the Red Water Farms and Districts principally in the Fraser Valley, was made in the month of June, and all information possible relative to the incidence of the disease and the conditions under which it occurs, was collected. Studies are being made of the chemical composition and pathological changes of the blood and body fluids of affected and normal animals, and of the hay and soil on affected farms.

ROUTINE LABORATORY SERVICES

Tuberculin Manufacture.—Two million two hundred and eighty-seven thousand one hundred and ninety test doses of tuberculin have been prepared and issued as required in the work of tuberculosis eradication. The commercial value of this laboratory product, in the amount issued, exceeds \$100,000.

Diagnoses and Pathological Reports.—Fourteen thousand seven hundred and fifty-four specimens and samples have been received and dealt with. These include—

164 microscopical examinations for rabies;

9,702 serological tests for infectious abortion and bacillary white diarrhoea;

433 bacteriological examinations of canned foods;

4,455 pathological, bacteriological and parasitological examinations.

MEAT AND CANNED FOODS DIVISION

The total number of animals slaughtered under inspection shows a decrease from the preceding year. In cattle and sheep, there was an increase of approximately four thousand head in the former and of one hundred and fifteen thousand in the latter, while hogs show a decrease of two hundred and twenty-seven thousand.

This is unfortunate and somewhat difficult to understand, more particularly when such rapid strides are being made in the improvement of the bacon breeds. This improvement has materially strengthened the position of Canadian Bacon on the British Market, with the result that the prices which are obtained compare very favourably with those paid for Danish bacon, which has been our keenest competitor.

The work of inspection itself has made progress. An increasing demand for meats marked "Canada Approved" is quite noticeable. As the consuming public become further educated as to the necessity for a sound, wholesome meat supply, this demand will still further make itself felt.

The packing plants have almost, without exception, been maintained in a very satisfactory condition. Many improvements in equipment have been made and the old fashioned methods of slaughter and handling of meat foods are fast disappearing. The care and attention given to the manufacture and distribution of meat leaves little to be desired.

During the year there was no increase in the number of plants operating under the provisions of the Meat and Canned Foods Act. There were, however, many enquiries as to the possibilities of granting inspection. These requests were investigated and detailed reports furnished, as to what was required before such requests could be granted.

In view of the growing demand in foreign countries for the flesh of horses to be used as human food, and the necessity for inspection to obtain such markets, an addition to our present regulations became necessary.

An Order in Council was therefore passed bringing Horse Meat under the Act. Special Regulations were also approved, which ensures that the export of this class of meat food will be permitted only under similar inspection and restrictions as apply to other meat foods.

Detailed statistics covering the work of this Division will appear in the report of the Veterinary Director General.

LIVE STOCK BRANCH

HORSE DIVISION

During the fiscal year just closed the horse market has been quite active, the demand being considerably keener than during the previous year, and which demand has continued to increase for the first six months of this year. During the calendar year 1929, Ontario brought upwards of 16,000 horses from the western provinces, while Quebec took a like number and the Maritime Provinces approximately 5,000, making a total of upwards of 37,000 for the year. This has resulted in considerable activity as regards horse breeding in the five eastern provinces, and consequently there are more colts in the country this spring than at any time for the last half dozen years. The Federal-Provincial Policy in aid of Horse Breeding, between each of the eastern provinces and the Live Stock Branch, by which a grant on a fifty-fifty basis is paid by the Live Stock Branch and each province, to the owners of stallions that pass inspection and that comply with certain requirements, has also done much to encourage the Eastern farmers to raise more horses.

The breeding of saddlers, hunters, and horses of that type, also polo ponies, is yearly receiving more attention, due to the steady demand at good prices for horses of this type. The breeding of good, big Hunters, gives the farmers more than one market as a hunter also makes a police, fire or remount horse. He is also a splendid delivery horse and likewise useful for farm work.

Transportation companies complain of a shortage of draughters, 1,700 pounds and upwards, for which kind they are ever ready to pay high prices. There has also been a good trade in the other types for city and lumber woods use. The demand for the various types of horses mentioned above bids fair to continue as over 16,000 western horses have been absorbed by the east during the first six months of this year, in addition to some thousands that have changed hands and that were bred in the east.

CLUBS

Horse Clubs are now confined entirely to the Prairie Provinces. The number last year was slightly larger than previously. Accordingly there was a keen demand for good stallions. Our Club Policy in addition to paying one-third of the service fees also protects the breeders, in that through careful inspection by officers of this department, only good specimens that are free from hereditary unsoundness can be hired by clubs. Thus a member knows that the club stallion he is using is sound, and of good conformation and likely to improve his horse stock. Another feature of the policy is that a district has to continue from year to year to use the same breed of stallion. Accordingly in a few years, a distinct type of horse is common in the district, which makes for improvement. The policy, however, is not one sided, as it has proven of undoubted benefit to the stallion owners. In the first place a club must guarantee the owner a definite number of mares; secondly, it must pay him one-third of the service fee at the end of the service season, without any trouble to himself in the way of collecting; and thirdly, the Club must pay the remaining two-thirds of the service fees on every mare that is in foal. Thus the stallion owner is assured of a fair return on his investment and sufficient money at the end of the service season to meet current expenses. In this way the owner of a good horse is encouraged and protected. This scheme has proven particularly popular in the Prairie Provinces where the farmers have learned the value of co-operation amongst themselves.

BREEDING STATIONS

During the year the various breeding stations carried on successfully. In the aggregate more mares were bred than any previous year. The steady demand for hunters, saddlers, police remount and light delivery horses has made the big thoroughbred sire a most popular horse. The chief difficulty in extending the work at the present time is due to the fact that there is only a limited number of these stallions of the cross-country hunter type in the country and also to the price at which such stallions are held in Great Britain where the Hunter Society and the War Office are, between them, awarding a premium to all suitable horses, while in the Irish Free State, the Government is encouraging the use of the hunter thoroughbred in the production of the world famous Irish hunter horse. Canadians from time to time import a few Irish hunters owing to the scarcity of this type in Canada, although the Canadian breeder can and has raised some equally good horses. The difficulty has been that the demand far exceeds the supply; in fact breeding station districts have been combed over to such an extent that there is scarcely a suitable hunter prospect available, and unfortunately the majority of the good young mares have been sold owing to the high prices the buyers were willing to pay. During the year, in one of the station districts several carloads of likely prospects from which to make good hunters were shipped to the United States at prices which yielded the breeders very good returns. Had these colts been schooled they would have brought one hundred per cent more on the average, while the outstanding ones would have been worth at least four figures.

THE HUNTER, SADDLE AND LIGHT HORSE IMPROVEMENT SOCIETY

This society was organized about four years ago and has since devoted its attention to the breeding and improvement of the hunter horse particularly, and has opened a Stud Book for the registration of foundation mares, and already in the neighbourhood of 1,000 have been enrolled. The headquarters are in Toronto, but branches have been formed in the western provinces, and it stands ready to help in any or all provinces just as soon as the breeders of a province are willing to join in the work. The society is also doing work in the way of encouraging the breeding and showing of suitable young horses by offering prizes at various fairs in districts where the number of colts of the right type warrant. This Department in addition to the yearly grant also aids the society in its work by furnishing one inspector to work with any provincial Inspector when examining foundation mares for the Stud Book. The Hunter Society has done much useful work in interesting horse lovers throughout the country and in helping advertise the possibilities in breeding this type of horse. A very generous grant is made yearly through the Live Stock Branch of this Department to the Hunter Society to help in carrying on the work.

FEDERAL-PROVINCIAL ASSISTANCE TO HORSE BREEDING

This policy is in force in the five eastern provinces. In brief the Dominion Live Stock Branch and the provinces in each case have united in making a grant to owners of sound, individually excellent stallions, that possess size, quality and conformation. All such stallions are inspected by a board composed of federal and provincial inspectors, and the grant is awarded according to the number of mares left in foal, but in no case exceeds \$300 per horse. Fifty per cent of each grant is paid by the federal Live Stock Branch and fifty per cent by the province in question. This policy is doing much to encourage horse breeding.

SPECIAL GRANTS

During the year a special grant was made to Horse Classes at the International Ploughing Match, which proved to be particularly popular and was the means of bringing out better horses and equipment. Grants were also made to a number of horse parades at each of which some hundreds of horses were shown. These parades have done much to encourage not only the owners, but the teamsters to take better care of their horses throughout the year, while thousands of people turn out to see the parade go by, showing that there is still a human interest in man's old friend, the horse. The usual grants for Get of Sire, and Commercial Classes at the various winter fairs, were also offered. The exhibits were uniformly good, but particular mention might be made of the Guelph Get of Sire Class, which was one of the outstanding features of the show. A number of grants to Colt Shows were also made, while a new class was inaugurated and tried out, viz., a "Boy's Horsemanship Class." The first show was particularly successful and it is hoped this class will become part of all winter fairs.

FUR FARMING

The success of any business lies in the market demand. It might have been expected that under the present world-wide financial conditions the fur market would suffer heavily. For some reason, however, this has not been the case, as good furs, even at the late winter sales, brought fair prices. From this it would appear that furs are considered more or less of a necessity, particularly in the northern countries.

Fox.—Fur farming is yearly becoming more popular as shown by the increase in the number of people who have taken up the breeding of fur-bearing animals as a business. At the present time the number of silver fox ranches outnumbers all others. The raising of blue foxes, however, is now steadily gaining ground, particularly on the west coast. One of the claims made by the breeders of the blue fox is that the litters are large, containing generally speaking from eight to ten pups and not difficult to raise. Fashion in furs changes from year to year, and now the blue fox is becoming quite fashionable, as high as \$225 having been paid for a good raw pelt. The pelt of the cross fox is also popular, owing no doubt to the fact that a good skin is very beautiful and is somewhat rare, as up to the present time fox men have confined their attention almost wholly to raising the silver fox. Now, however, that a goodly supply of silver pelts is yearly going to market, some of the far sighted breeders are mating a silver dog fox to a good red female, or vice versa, in order to produce a cross pelt.

Mink.—Mink farming during the year has continued to increase. There was a good demand for breeding stock at comparatively speaking high prices in Canada. There was also a foreign demand for hundreds of breeding animals which netted the breeder a good return on investment. Pelts brought a very fair price on the market, as high as \$70 being paid for a single skin. Mink, unlike some of the other fur bearers, thrive exceptionally well in captivity and become quite tame. They can be raised with a minimum amount of trouble.

Muskrat.—Muskrat raising, particularly by fencing in a small lake surrounded by marsh land, well stocked with such plants as water lilies, flags, wild rice, and cattails is becoming common. It has also been found that muskrats can be raised satisfactorily on dry land. Owing to the fact that they raise three large litters a year, they multiply very rapidly and bring good returns on investment. There is always a market for the fur and also a good demand for breeders at fair prices. During the year, several fairly large shipments of muskrats went to Europe. It is also reported that a number went to the United States.

Marten.—Up to the present only a few marten have been raised in captivity. This is due first to the fact that breeding stock is difficult to secure and secondly that marten do not take so kindly to domestic conditions as other fur bearers, particularly the mink. Last year a breeder at Ingersoll succeeded in raising eighteen young marten. This to date is the largest number reported as having been born and reared in any one ranch. Undoubtedly this success which has been given wide publicity will do much to encourage other parties to give more attention to marten breeding.

Other Fur Bearers.—Other fur bearers, such as beaver, fisher, skunk, raccoon, badger, and even coyotes are being successfully raised and the number of breeders is slowly but nevertheless yearly increasing. A year or so ago a Fitch Farm was established in Canada and according to latest reports, the venture has been successful, as the ranch owner is now offering some of these little animals for sale. The Canadian climate is particularly suitable for fur raising. There is also a sufficient supply of cheap food. These coupled with the steadily growing world demand and comparatively high prices for furs will undoubtedly be the means of yearly increasing the number of people that take up the raising of fur bearers as a life work. Comparatively speaking only a few years have gone by since it was claimed that foxes could not be domesticated. Now it has been found that even better fur can be produced in captivity. Undoubtedly another quarter of a century will show the same to be true in the case of various other fur bearers.

CATTLE DIVISION

GRADING AND BRANDING OF BEEF FOR THE DOMESTIC MARKET

Regulations under the Live Stock and Live Stock Products Act providing for the establishment of a Beef Grading Service were passed by Council in February, 1929, and the necessary inspection staff has since been appointed. The larger packing concerns having indicated their willingness to brand top quality beef in accordance with the regulations, the service was made effective September 23.

This new service embodies the principles which were recommended by the Joint Beef Committee appointed by the National Beef Conference which was called by the Department at Winnipeg in June, 1928, at which producers' organizations, Dominion and provincial Departments of Agriculture, the packing industry and the retail meat trade were represented.

The system is inaugurated on a voluntary basis and is limited to beef which has been federally inspected from the health standpoint. The actual grading and branding is done by employees of the establishments concerned, but continuous supervision is exercised by officers of the Department to ensure that the prescribed standards of quality are adhered to.

Only top quality beef is branded under the two grades, "Choice" and "Good." The grade "Choice" is in all cases designated by a red brand in the form of two ribbon-like marks running from end to end of the carcass. This grade is necessarily somewhat limited in volume, and represents the product of particularly high class, well-finished cattle. The grade "Good" is marked similarly to the "Choice" grade, except that the colour of the brand is blue instead of red. Beef of this grade is in greater supply than that of the "Choice" grade, but will include only beef which can be safely recommended as of good eating quality. Establishments are permitted to sell these two grades under their own trade brands but the brands of all establishments must be imprinted in red for the grade "Choice" and in blue for the grade "Good."

The effect of this service should be to give to the product of well-bred, properly finished young cattle the recognition which it has long deserved in the domestic retail meat trade. If it is to be of full benefit to the producer, however, the supply of the right kind of cattle to meet the requirements of our home market must keep pace with the demand for graded beef. The light-weight carcass weighing within a range of 450 to 550 pounds, but preferably under 500 pounds, is the one which finds the most ready sale in the Canadian trade to-day. While beef grading may possibly help to develop a keener appreciation among consumers of the superior flavour of the heavier carcass from the more mature animal, the widest demand for some time will undoubtedly be for the product of animals weighing not over 1,050 pounds at the time of slaughter.

To take full advantage of this outlet, cattle must naturally be finished as yearlings. This does not imply baby beef production as ordinarily understood, but does imply carrying the young animal forward to the finished stage without allowing loss of natural flesh at any stage of its development. Through producers' organizations and provincial Departments of Agriculture, steps are being undertaken to organize beef production campaigns throughout the country, in which will be emphasized the importance to producers of studying carefully how they may most economically convert their practice to one of feeding out a larger percentage of breedy young cattle as yearlings. To the degree to which this can be successfully accomplished, producers will improve their position in finding the broadest outlet for their finished product not only in the domestic but also in export markets.

BOYS' CATTLE BREEDING CLUB POLICY

This policy, which was inaugurated in 1921, is at present conducted in conjunction with the provincial departments of the five eastern provinces. Some of the western provinces are, however, becoming interested and further extension of the work in that direction in the course of the next year is probable.

Experience with club work has demonstrated that the average member rapidly arrives at a stage where a capacity is revealed for enterprises beyond the scope of ordinary club activities. The valuable training and experience which the boys secure in the feeding, showing and judging of live stock, in financing and business methods, and in the keeping of accurate records of feed costs and production, awaken ambitions which demand new spheres of action. These aspirations have found expression in various directions—herds have been materially increased, where in many cases the club heifers marked the introduction of pure-bred cattle into a district, that district has since established a reputation as a centre for a particular breed, trade in pure-bred cattle has been greatly stimulated, Record of Performance, Cow Testing, Accreditation and similar advanced movements have been readily adopted, and, in short, more scientific methods of agriculture have been universally employed and farm life in general has been elevated to a much higher plane.

In addition to the club competitions and the special classes at provincial fairs which have meant so much in every way to club members, the Canadian National Railways now furnishes annually to winning teams of Breeding Club and Calf Feeding Club members from each province a free trip to the Royal Agricultural Winter Fair where an Interprovincial Championship Competition is held. As a climax to the club work of the season, this has proved to be a most eventful experience to competing teams. An additional stimulus was provided at the last competition at the Royal by the selection there of a team of three members to represent Canada at an International Judging Competition to be held at the Royal Show in England in June, 1930.

CALF FEEDING CLUB POLICY

From a modest beginning in 1922, the Calf Club Policy administered and supported jointly by the Dominion and the Provincial Department of Agriculture

concerned has been rapidly expanded. While the work is as yet limited to Quebec and the three Maritime Provinces, upwards of 150 clubs were in operation in 1929 with a total membership of over 3,000 boys and girls.

The policy provides a valuable instrument for kindling interest in, and implanting knowledge of the fundamental principles of correct cattle feeding and management. In addition to the more direct benefits which the club members derive in the way of financial rewards, knowledge of the various phases of live stock husbandry, fitting and showing, etc., the members soon display a desire and capacity for extending their interests and energies to more advanced activities. Consequently, in order to keep pace with this development and demand, it has been necessary from time to time to enlarge the scope of the policy. As at present constituted, the policy provides for continuing a club for three years, the original calf being supplemented each year by a calf of the current season, and classes for the various ages included in the prize list. It is further provided that where Cow Testing Associations embracing all the herds in the club are organized, a competition will be held the fourth year. It is also the intention to graduate clubs which have shown proper interest and progress into Boys' Cattle Breeding Clubs and thus afford the members an opportunity to capitalize and apply to the raising of pure-bred stock the knowledge and experience they have acquired in Calf Feeding Club work.

ADVANCED REGISTRATION OF DAILY BULLS

Certificates of Advanced Registration have been issued for upwards of 1,400 bulls since this service was established in the spring of 1925. While this number may not seem large in relation to the total number of pure-bred bulls annually produced, it should be remembered that only bulls which have R.O.P. credentials on both sides of their ancestry are eligible and that a bull must pass a rigid inspection as regards type before being admitted.

Five breed associations contribute to the support of the system as carried on by the Dairy Cattle Committee—Ayrshire, Jersey, Guernsey, French Canadian and Red Poll. A similar system is administered by the Holstein-Friesian Association of Canada through its own office.

The chief value to the industry of Advanced Registration lies in the effective manner in which it focusses the attention of dairymen upon the importance of combining desirable type with recognized production credentials in the sires used in commercial as well as in pure-bred herds. The effect on the quality and productive capacity of herds into which such bulls have been introduced is already becoming apparent.

In the five years since the system was organized it has been demonstrated that large breeders as well as small take pride in having A.R. sires at the head of their herds. In facilitating the sale of young bulls, Advanced Registration has proved of special benefit to small breeders. They, as well as large breeders, have capitalized the assurance of satisfaction inspired by A.R. credentials to good advantage in increasing their mail order business. At the same time, buyers have been saved the expense of personally inspecting a number of bulls before making a selection, and have, therefore, been better able to afford the price of a worthwhile sire.

RECORD OF PERFORMANCE FOR PURE-BRED DAIRY CATTLE

The value of tests for full milking periods is now firmly established, and breeders of pure-bred dairy cattle in all parts of the Dominion, where dairying is carried on, depend on the Record of Performance to furnish them with reliable information as to where stock from ancestry with known production records may be obtained.

The esteem in which the Record of Performance is held may be judged by the steady increase in the work since its inception. During the past year, 10,282 cows have been entered for test. This is a 500 per cent increase over the number entered in the year 1920.

The following is a summary of the number of cows entered in the Record of Performance during the past year and the number of certificates issued for bulls and cows during the same period, also the number of certificates issued since the inauguration of the Record of Performance.

COWS ENTERED FROM APRIL 1, 1929, TO MARCH 31, 1930

Ayrshire.....	2,990
Brown Swiss.....	6
French Canadian.....	438
Guernsey.....	379
Holstein-Friesian.....	4,215
Jersey.....	1,770
Red Poll.....	57
Shorthorn.....	427
	<hr/>
	10,282

NUMBER OF RECORD OF PERFORMANCE CERTIFICATES ISSUED DURING THE PAST YEAR

	Cows	Bulls
Ayrshire.....	865	40
Brown Swiss.....	4	
French Canadian.....	164	7
Guernsey.....	155	8
Holstein-Friesian.....	1,244	58
Jersey.....	546	26
Red Poll.....	35	2
Shorthorn.....	166	6
	<hr/>	<hr/>
	3,179	147

TOTAL NUMBER OF CERTIFICATES ISSUED SINCE THE COMMENCEMENT OF THE RECORD OF PERFORMANCE

	Cows	Bulls
Ayrshire.....	7,251	343
Brown Swiss.....	25	2
French Canadian.....	932	41
Guernsey.....	869	38
Holstein-Friesian.....	9,861	506
Jersey.....	4,779	195
Red Poll.....	217	6
Shorthorn.....	2,045	65
	<hr/>	<hr/>
	25,979	1,196

COW TESTING SERVICE

Through this service, provision is made for the keeping of records of the milk and butterfat production of cows in grade dairy herds in any district in the provinces of Alberta, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island and Quebec. These records furnish evidence for dairymen on the important factor of cost of production, and permit them to study their problem from a breeding, feeding and weeding viewpoint.

The results for the year 1929 were encouraging. There was an increased demand for the service, and a keen interest was taken by the majority of Cow Testing members.

Each year many of the unprofitable cows were disposed of for beef, and there is a continuous demand from members of the several Cow Testing organizations for bulls and heifers from sires and dams of known production. Feeds, suitable crops and cropping systems are receiving more attention, and cows recorded are being milked longer periods each year.

During the calendar year 1929 Cow Testing Service work was conducted in six provinces. Two hundred and five Cow Testing associations were organized with a total of 2,752 herds, including 25,365 cows recorded.

Province	Promoters	Associations	Herds	Cows
Alberta.....	1	7	92	838
Manitoba.....	2	17	332	2,878
New Brunswick.....	2	28	368	3,237
Nova Scotia.....	3	48	608	4,370
Prince Edward Island.....	1	5	54	369
Quebec.....	8	100	1,298	13,673
	17	205	2,742	25,365

COW TESTING REGISTER

This special feature of the Cow Testing Policy gives recognition to the best cows in the herd. The service is available to a limited number of herd-owners in districts in which Cow Testing associations are organized, for which an entry fee of \$10 per annum is charged by the Branch for each herd entered. The inspector gives close attention to the details of recording, sampling and testing, and each cow reaching a standard of 6,000 pounds milk and 300 pounds butterfat in twelve consecutive months is issued a production certificate.

A total of 122 cows were entered in 1929. Four cows have been awarded their third certificates, four have received two certificates, and eight have qualified for the first time during the year.

POULTRY DIVISION

Considered as a whole, the general prosperity which has attended the poultry industry during recent years was apparent throughout the year 1929. This was much more in evidence during the late spring, summer and fall months than during the winter. The phenomally mild weather of December, 1928, and early January, 1929, precipitated almost spring production, with the result that the producing areas of Western Canada commenced their carlot movement two months or more earlier than usual. This condition naturally reacted against the obtaining of the usual remunerative prices for winter eggs and for a short time the situation was really disconcerting to both producers and dealers alike.

So brisk, however, was consumptive demand during the summer months that for the first time in the history of Canada storage eggs were called upon to meet current demand in the month of July, and while the outward movement was not to say large, as compared with the fall months, it was a distinct innovation in the matter of egg and poultry markets. The early movement of storage once started gained very considerable momentum and each month showed a larger outward movement, until in November more eggs were moved out and into consumption than were left in storage on the first of December. By the turn of the year, eggs in Montreal, particularly storage eggs, were shorter in volume than in the experience of the oldest members of the trade.

Per capita consumption of eggs in Canada during the year again showed an increase amounting during 1929 to 30.87 dozen per capita as against 30.65 for 1928.

Imports during the fiscal year 1928-29 showed a slight falling off; exports, a slight increase, this being mainly brought about by the movement of eggs from British Columbia to Great Britain by means of the Panama canal. It is reported, however, that some of the most profitable business transactions in eggs on the

part of British importers were their sales in Canada of eggs originally intended for shipment to Great Britain, but which were disposed of here without ever having been shipped.

One of the more outstanding features of the year with regard to eggs was the growing conviction that the cause of a good deal of the lower quality apparent at time of grading is due to the conditions affecting production rather more than what happens to an egg between the time it is laid and is brought before the light for grading.

In poultry, prices were fair during the summer months, this trade being materially helped by the tourist demand and extent to which chicken dinners are being featured generally. The first sales of poultry in the fall of the year brought very satisfactory returns but in the congestion that occurred in the heavy marketings just before Christmas prices rather lower than the average of the last few years were maintained. This no doubt was partly brought about by the general financial situation and curtailed buying power of the public. An encouraging feature, however, has been the apparent and growing tendency on the part of the consuming public to pay a real premium for well grown, properly finished and well dressed poultry. In this preference for quality lies the greatest opportunity for those producers who are really anxious to make their poultry keeping remunerative.

EGG INSPECTION

The advantages of standardization as relating to a particular agricultural product have been equally as noted during the last year as has been previously mentioned. Egg consumption has again shown satisfactory increase and Canada continues to lead the world in per capita consumption of eggs by a wide margin. The most notable factor during the year has been the passing under "The Live Stock and Live Stock Products Act" of amendments to the egg regulations, which are now effective in all provinces excepting Ontario and Quebec. In these amendments little or no change has been made in that part of the regulations covering the sale of the graded product. In principle no change has been made as covering the graded return to the producer, but the need of considerable change has been apparent for some time in the way of an effective check-up on the graded return.

In all of the promotional work behind egg grading the whole object has been to secure for the careful producer that premium for quality which the consumer has shown his willingness to pay. Steadily the differential between the grades has increased. At one time last fall in Montreal the differential between "Extras" and "Seconds" was no less than 24 cents a dozen, the price for "Firsts" being about half way in between. The differential existing in the grades of eggs to-day is such as of itself alone to insure a good profit to the producer of high grade eggs as compared to low.

It is a comparatively simple matter to check up in a matter of sale the quality of eggs offered for sale against the definition for that grade as appearing in the standards. The eggs either are or are not as represented. On the other hand the difficulties surrounding a similar adequate check on the return of the differential to the deserving producer present great problems in an administrative way. It is the return of money that is to be checked and an inspector needs not only to have a knowledge of eggs but to be an accountant and a detective as well. In other words, the interchange of money is far more difficult to check than is the interchange of product.

The inspection work throughout the year was very heavy, the increased call for inspections, both for interprovincial and local trading, being considerably in excess of any previous year.

The following is a statement of the work of the inspection service for the twelve months ending 1928 and 1929:—

TABLE No. I—COMPARATIVE STATEMENT OF EXPORT, INTERPROVINCIAL AND LOCAL INSPECTIONS

Year	Number of cases inspected	Shipments approved	Shipments not approved
1928.....	578,469	4,554	264
1929.....	661,762	5,239	487

TABLE No. II—COMPARATIVE STATEMENT OF EXPORT, INTERPROVINCIAL AND LOCAL INSPECTED EGGS

Year	Export		Interprovincial	
	Inspections	Cases	Inspections	Cases
1928.....	299	34,283	3,345	427,113
1929.....	402	40,648	3,729	492,404
	Local		Total	
	Inspections	Cases	Inspections	Cases
1928.....	1,174	117,073	4,818	578,469
1929.....	1,595	128,710	5,726	661,762

TABLE No. III—COMPARATIVE STATEMENT OF CASES INSPECTED BY GRADE

INTERPROVINCIAL

Fresh

Year	Ex.	%	P. Ex.	%	Firsts	%	Sec.	%	Total fresh
1928.....	149,512	41.0	19,062	5.2	128,931	35.0	68,806	18.8	366,311
1929.....	169,987	39.2	19,950	4.6	149,194	34.4	94,445	21.8	433,576

Storage

Year	Ex.	%	Firsts	%	Sec.	%	Total Storage
1928.....	6,752	11.6	20,498	35.1	31,156	53.3	58,406
1929.....	2,890	5.4	20,094	37.5	30,646	57.1	53,630

Preserved

Year	Ex.	%	Firsts	%	Sec.	%	Total Preserved
1928.....	1,448	60.5	.....	.....	948	39.5	2,396
1929.....	2,641	50.8	1,032	19.9	1,525	29.3	5,198

TABLE No. III—COMPARATIVE STATEMENT OF CASES INSPECTED BY GRADE—*Con.*LOCAL—*Fresh*

Year	Ex.	%	P. Ex.	%	Firsts	%	Sec.	%	Total Fresh
1928.....	43,793	39	388	0.3	56,860	50.6	11,386	10.1	112,427
1929.....	49,833	41	474	0.4	57,110	46.8	14,403	11.8	121,820

Storage

Year	Ex.	%	Firsts	%	Sec.	%	Total Storage
1928.....	833	18	3,512	75.6	301	6.4	4,646
1929.....	1,298	18.8	3,857	56.0	1,735	25.2	6,890

Preserved

Year	Ex.	%	Firsts	%	Sec.	%	Total reserved
1928.....							
1929.....							

EXPORT—*Fresh*

Year	Ex.	%	P. Ex.	%	Firsts	%	Sec.	%	Total Fresh
1928.....	4,360	30.2	795	5.5	9,229	63.9	55	0.4	14,439
1929.....	5,482	67.8	990	12.2	1,291	15.9	333	4.1	8,096

Storage

Year	Ex.	%	Firsts	%	Sec.	%	Total Storage
1928.....	1,185	6.0	18,311	92.3	348	1.7	19,844
1929.....	1,228	4.5	25,665	94.1	398	1.4	27,291

Preserved

Year	Ex.	%	Firsts	%	Sec.	%	Total Preserved
1928.....							
1929.....	375	7.1	4,886	92.9			5,261

Year	Inspections	Approved	%	Not approved	%
1928.....	4,818	4,554	94.6	264	5.4
1929.....	5,726	5,239	91.5	487	8.5

Year	Cases	Approved	%	Not approved	%
1928.....	578,469	554,339	96.0	24,130	4.0
1929.....	661,762	624,890	94.4	36,872	5.6

TABLE No. IV—COMPARATIVE STATEMENT OF INSPECTED EXPORT SHIPMENTS BY PROVINCES

	1928	1929
	cases	cases
Ontario.....	13,495	15,925
Quebec.....	3,675	3,561
Prince Edward Island.....	1,588	1,599
New Brunswick.....	224	441
Nova Scotia.....	50	332
Saskatchewan.....	512	
British Columbia.....	12,410	17,118
	31,954	38,976

CLASSIFICATION OF EXPORTS

	1928	1929
Fresh.....	14,111	7,499
Storage.....	17,843	26,591
Preserved.....		4,886
	31,954	38,976

TABLE No. V—IMPORTS, 1929

	Fresh	Storage	Preserved	Total
Misc. East.....	3,565			3,565
Montreal.....	8,949			8,949
Toronto.....	3,636	397	76	4,109
Windsor.....	147			147
Sault Ste. Marie.....	400			400
Misc. West.....	1,164			1,164
Winnipeg.....	2,243			2,243
Vancouver.....	$\frac{1}{2}$		1,914	1,914 $\frac{1}{2}$
	20,104 $\frac{1}{2}$	397	1,990	22,491 $\frac{1}{2}$

COMPARATIVE STATEMENT OF IMPORTS

	Number of inspections	Number of cases
1928.....	234	32,949
1929.....	237	22,491 $\frac{1}{2}$

TABLE No. VI—TOTAL INSPECTIONS, 1929

	Inspections	Cases
Import.....	237	22,491 $\frac{1}{2}$
Export.....	402	40,648
Interprovincial.....	3,729	492,404
Intraprovincial.....	1,595	128,710
	5,963	684,253 $\frac{1}{2}$

These tables show some increase in exports, a useful reduction in imports, a big increase in interprovincial and intraprovincial shipments and approximately twenty per cent increase in the total quantity of eggs inspected throughout the year. In addition to the regular work of inspection by approval, the inspection staff makes approximately thirty thousand calls upon retailers and wholesalers for the purpose of checking up outgoing shipments. The number of prosecutions during the year was not as large as in previous years.

The current problem in connection with egg inspection is to obtain properly qualified men at the existing Civil Service classification. While there have been a number of applicants for the positions who have taken the Civil Service examination, only one candidate outside of men already in the employ of the Department has been successful in the last two examinations that have been held, the cost of holding the examinations being out of all proportion to the number of men obtained.

CO-OPERATIVE MARKETING AND POULTRY PROMOTION

The really outstanding achievement today in co-operative egg and poultry marketing is the Canadian Poultry Pool which acts as sales agent for the egg and poultry co-operatives of the four western provinces. This development has largely been brought about by the success that attended the organization of the Manitoba Co-operative, with which was affiliated the Saskatchewan Co-operative under the name of the Canadian Poultry Pool. The British Columbia Pool was organized in the winter of 1928-9 and commenced shipment the next spring. About the same time also the Alberta Co-operative joined the Pool.

Officers of the Promoter Service have largely been responsible for the inception of co-operative egg and poultry marketing in Canada. The pools, however, today have become so large in a business way and so well developed that they are now to a large extent taking over their own organization work, naturally, however, with the good will and support of the department, in fact such development on their part is simply the fullest consummation of the plan in mind at the outset.

During the year officers of the Promoter Service have been active in the introduction of the Dressed Poultry Standards. This service, together with the Chief Poultry Inspector and the assistance of other officers of the Branch, has been largely responsible for the introduction of the standards into commercial practice.

Live poultry carlot shipment has also been continued, this activity, however, in the better organized districts being taken over entirely by the co-operatives.

An important phase of the work in the past year has been the Hatchery Approval Policy and the inspection work covering the flocks supplying eggs to the hatcheries.

In a word, the Promoter Service through their thorough knowledge of conditions and public opinion in their respective territories on the one hand, interpret to the Department the needs of those territories, and on the other hand carry back and interpret to those territories departmental policies devised to meet those needs.

DRESSED POULTRY INSPECTION

It is hoped that it will be possible to bring under the purview of the Dressed Poultry Regulations, made effective in the fall of 1928, the greater part of dressed poultry marketed in Canada on a purely voluntary basis, and without making the regulations compulsory. There was a steady increase in the call of inspection on carlots handled during the summer, and during the fall and early winter the amount inspected was about three million pounds. The regulations provide the standards for trading and set forth the manner in which inspection shall be made when requests are received. The only mandatory feature included is the state-

ment to the effect that when the grade names and standards terms defined in the regulations are used and marked on the container, the quality of the poultry contained therein shall be as represented. Possibly the biggest factor in making the regulations effective is their adoption this year by the Canadian Poultry Pool, representing as they will a very considerable part of the poultry marketed from the western provinces.

Probably in Canada there is no more complete illustration of where the producers by their own effort complete the full operation of killing, dressing and handling the live stock product than is the case in the instance of the Co-operative Associations in the west. There the co-operative producers by their own labour not only kill and dress, but weigh, pack and load their poultry in carloads in such a manner and with such a degree of efficiency, that the poultry moves right through all the channels of trade without anyone having to go to the expense of even lifting the lid of a case. All this poultry is packed under Government inspection, by arrangement with the co-operatives, there being an Inspector present at each loading point who observes the quality of the birds going into the boxes, and who, after the cases have been properly marked, places thereon the Government mark of approval.

The principle of poultry inspection has been endorsed widely by the Produce Sections of the Boards of Trade throughout the Dominion, and the endeavour is in a short time to make the certificate covering a car of poultry of just as great commercial significance and value as a certificate covering a car of eggs.

TURKEY APPROVAL POLICY

Both directly in some provinces and in co-operation with provincial departments in others, very considerable development has taken place under this policy, and the effect is being rapidly apparent in the quality of turkeys offered for sale. A salient feature that has meant much in the policy has been the practice in most districts to build improvement out of the stock actually produced there.

From the dressed poultry fairs and co-operative carlot shipments a good deal of experience has been gained as to the individuals in the different districts whose turkeys grade the highest and come nearest to meeting market requirements. The practice has been to visit these producers in advance of marketing time for dressed poultry and select from the flocks, and mark with an approved band, the birds which show indications of quickest maturing, the most vigour, that come nearest fulfilling market requirements and save those as the breeding stock for the district. By so doing is secured right away a quality of breeding stock which has already been acclimatized, which is known to be reasonably free from disease, and which can be interchanged among the neighbours at a price within the reach of all.

A practice of this kind would only be possible through the first hand knowledge gained in the marketing of poultry in previous years, insuring an improvement in type much more rapid than could be gained by a few individuals obtained from some distant part of the country.

EGG AND POULTRY MARKETS INTELLIGENCE

The distribution of egg and poultry markets intelligence by daily and weekly reports is an important part of the work of the Poultry Division. This service reaches a large number of producers who follow it closely as a market guide. Two reports are issued, a stencilled daily report and a printed weekly report. The latter is printed both in Ottawa and Vancouver, the object of printing in Vancouver being to give better service and more up-to-date information to far western subscribers. The two printed reports have a total circulation of some eight thousand copies and there is, in addition, a stencilled weekly report issued in French from Ottawa.

The market information used in the report is secured largely through officers of the Department, although, at some of the more important markets, reports are also obtained from private individuals. Weekly cables and monthly market letters are received from the Old Country as well.

RECORD OF PERFORMANCE FOR POULTRY AND HATCHERY APPROVAL

Record of Performance for poultry in the record year 1928-29, the tenth year of its operation, has continued the steady increase in usefulness and efficiency that has been apparent since its inception in 1919. A total of over 200,000 birds have been trapnested to date under this policy. Of this number approximately 35 per cent have been certified as meeting the requirements regarding vigour, production, egg weight, breed type and freedom from standard disqualifications. This mass of tested stock provides, in a large part, the foundation upon which is being built a national industry.

The plan underlying this policy is to provide a steady stream of high power males going back to the approved flocks and the community hatcheries from which emanate the great mass of eggs for hatching and day-old chicks for the farms of Canada.

Intimately connected with this policy is the Hatchery Approval policy, introduced for the first time in the fall of 1928. This policy consists of the selection and inspection of the flocks behind the hatcheries which make application for entry in the Hatchery Approval Policy.

The day-old chick business is becoming an important link in the poultry business in Canada, it having been demonstrated that in contrast to conditions ordinarily found when one hatches with hens or with a number of recurring hatches with a small incubator, where a farmer buys two or three hundred day-old chicks at one time and all of one age, and broods them properly, that he saves himself a lot of time and labour and incidentally has a flock of sufficient size to warrant that care and attention that ensures him a uniform flock of pullets sufficiently matured to commence laying early in the fall of the year. In other words, a farmer finds himself, for the first time in his experience, with a daily return from his poultry at a time when eggs are highest in price that gives him an entirely new conception of the possibilities of poultry on the farm. Having in mind, therefore, the important part which the hatchery is bound to take in the future development of the industry, the Hatchery Approval Policy has been launched so as to ensure purchasers of the best possible stock and also to link up with this stock with such activity all the benefits that can be secured from the production of high producing stock under the Record of Performance Policy, the plan being to head all of the approved flocks, as soon as possible, with approved R.O.P. or other males of similar high breeding. The Hatchery Approval Policy is administrated under the same auspices as the Record of Performance Policy and, so far as possible, by the same staff. The work is largely inaugurated in co-operation with the Canadian Baby Chick Association and by agreement with them, fees are charged which largely takes care of the cost of operation.

EXHIBITS AND PUBLICITY

As has been the custom for some years past exhibits are sent by the Live Stock Branch to the majority of the more important summer and winter agricultural fairs in Canada. A comprehensive exhibit, embracing the various policies of the Branch, is prepared for the western summer fair circuit and, following the completion of these, is used at a number of fall and winter fairs in the East. The Exhibit during the past season, portraying the expanding home market for live stock and live stock products and accompanied by loud speakers telling the story of the exhibit, attracted widespread interest at every point where shown.

In addition to the larger exhibits, embodying the branch policies as a whole, a number of smaller poultry exhibits are sent out to the smaller shows. These include demonstrations on such matters as egg grading and poultry killing and dressing and also are designed to popularize the various Poultry Division policies.

A development of the past few years, which is growing in favour rapidly, is the installation of Egg Grading and Cooking demonstration booths at the larger summer fairs. These are financed in part by the Department and in part by the exhibition authorities. Rounding out these demonstrations are displays staged by the leading wholesalers and co-operative organizations in the various centres, the whole making a very attractive and educational egg display.

The use of store windows in the larger cities for egg display and grading demonstration work has been a feature of the Exhibits and Publicity Program of the Poultry Division during the past year. This has been found to be an excellent medium for acquainting consumers with standardized egg grading and it is planned to make increased use of store windows for demonstration purposes in both eggs and poultry during the coming year.

The preparation of an exhibit for the World's Poultry Congress in London next summer will be the major exhibit activity of the Poultry Division during the coming year. The Canadian exhibit at the Poultry Congress during 1927 created a profound impression on the delegates from the various parts of the world and an exhibit will be arranged at London which will further popularize Canadian policies and Canadian poultry breeding stock. A large volume of business, particularly in breeding poultry, is directly traceable to the effects of Canadian exhibits at these World Poultry Congresses.

In connection with the regular routine work of the Poultry Division, as well as for use at the Poultry Congress next year, a number of motion picture films, depicting the various phases of the poultry industry, are being made.

SHEEP AND SWINE DIVISION

SHEEP

Canada's sheep industry continued to expand during the year 1929. In both Eastern and Western Canada the lamb crop was satisfactory and although the season was dry, pastures having suffered to a considerable extent, lambs came forward to market with as much finish as usual. The wool clip was probably the most satisfactory for a number of years both in weight of fleece and cleanliness as well as strength and quality of staple. The wool clip to some extent reflected the general health of flocks and the general improvement in ewe stock following the continued use of pure-bred rams.

The consumption of lamb increased considerably during the year and according to official statistics is estimated to have been 7.2 pounds per capita throughout the Dominion. Lamb marketing statistics show that there was a considerable volume of lambs and sheep offered for sale each month of the year and during the months of June, July and August larger quantities of early lambs were sold at very attractive prices. On the whole lamb and wool prices were slightly higher in 1929 than in 1928 and as a result the year was one of great confidence and satisfaction to sheep raisers throughout the Dominion.

The demand for pure-bred sheep was good, both ewes and rams selling at satisfactory prices. The export trade in pure-bred sheep to the United States was somewhat above the average. Requirements and prices for grade ewe stock was considerably better than in 1928, the volume of ewes necessary to fill orders having to be met in a number of the provinces by the selection of ewe lambs.

The province of Manitoba imported some 10,000 head of range ewes from the United States. These were placed in small flocks on Manitoba farms under a special policy which aims to increase the sheep population of that province.

Sheep raising in Manitoba is being encouraged in order that farmers may more successfully combat the wheat problem which has assumed serious proportions in many districts. British Columbia made rather extensive importations from Alberta. The expansion of the sheep industry in British Columbia is largely confined to sheep ranching areas of the interior although a number of new sheep clubs have been organized in the older settled districts. In the Province of Quebec over 4,000 ewe lambs were selected from the fall run to establish new sheep flocks under the Sheep Club Policy.

Further improvements of pure-bred flocks was assisted by the importation of upwards of one hundred head of imported rams and ewes from Great Britain, these being mostly for breeders in the provinces of Quebec and Ontario. These animals were selected from a number of the oldest sheep raisers and leading exhibitors in the British Isles and should contribute considerably to the general improvement of our leading breeders in Canada.

In as far as can be ascertained sheep flocks throughout the Dominion are at the present time in a very healthy condition. Returns in both wool and lamb remain at a high average and market receipts of both lambs and mutton are showing the results of better breeding, modern practices in sheep management and more care in the finishing of the stock for market.

SHEEP FAIRS AND LAMB SALES

The value of these fairs and sales from the standpoint of encouraging co-operative marketing is becoming more apparent from year to year. They encourage the production of quality lambs; they have a pronounced educational value from the standpoint of educating the farmer to the exact market requirements as required in ideal market lambs; they reduce marketing expenses, encourage competition and ensure full market value for a quality product.

A new feature which was included during the past year under this heading was the assembling of fifty-four carloads of lamb club lambs at a Lamb Show and Sale which was held in conjunction with the opening of the Montreal Stock Yards at Point St. Charles. At this show there were classes for carloads, pens of five and two classes of singles. Following the judging, the lambs were sold by auction the next day. This event excited a great deal of favourable comment and did a great deal to give prominence to the work of improvement in market lambs which is taking place in the province of Quebec. It is expected that this show and sale will be made an annual event and an effort will be made to couple with it the further development of the sale of pure-bred sires by auction.

The experience gained at Montreal through the merchandizing of lamb carcasses from lambs sold at the Montreal Lamb Show makes it possible to initiate in a more general way the popularization of Canadian lamb as a meat throughout Canada. In the general expansion of the sheep industry which has taken place the Lamb Fairs have provided a medium through which choicely bred ewe lambs may be selected for the establishment of new flocks. In 1929, 123 Sheep Fairs were held at which 44,894 lambs were sold. Grants for the Sheep Fairs and Lamb Sales are provided by the provincial and federal Departments of Agriculture. Every fair in addition to its own local organization is assisted by the promotion staffs of the federal and provincial Departments of Agriculture. The sale of these lambs on a quality basis and the fact that they average almost ideal market weights of between 80 and 90 pounds has resulted in a decided premium for better quality lambs at all these fairs.

PURE-BRED RAM PREMIUM POLICY

This policy continues to exert an influence in popularizing the use of pure-bred rams, this being particularly true in the province of Quebec. Since its inception in 1919 something over 13,900 rams have been purchased by farmers

who had not previously used a pure-bred ram. The usefulness of the policy, even at this date, is evidenced by the fact that in 1929, 1,447 second premiums were paid and 1,786 first premiums were accepted. Each year the policy is definitely responsible for the establishment of new sheep breeding centres. These districts having observed the benefits accruing from the use of pure-bred sires continue to make steady progress in the grading up of their ewe flocks. From year to year lambs marketed from these districts continue to show greater uniformity and approach more nearly the ideal market requirements. The following tables show the number of premiums paid in 1929:—

RAM PREMIUM POLICY—FIRST PREMIUMS, 1929

Breed	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Alberta	Total
Shropshire.....	10	31		396			437
Oxford Down.....		29	43	756	24	5	857
Hampshire.....			10	202			212
Leicester.....				263			263
Cheviot.....				17			17
Total.....	10	60	53	1,634	24	5	1,786

RAM PREMIUM POLICY—SECOND PREMIUMS, 1929

Breed	Prince Edward Island	Nova Scotia	Quebec	Total
Oxford Down.....				
Shropshire.....	8	13	617	638
Hampshire.....	14	17	353	384
Leicester.....			164	164
Cheviot.....			247	247
			14	14
Total.....	22	30	1,395	1,447

BOYS' AND GIRLS' SHEEP CLUB POLICY

Following its adoption in 1927 this policy has continued to grow in popularity throughout the Dominion. From eleven clubs organized the first year the policy has expanded until in 1929 a total of fifty-eight clubs have been organized. The policy to date has been responsible for the establishment of upwards of 1,000 new sheep flocks on farms where sheep were not previously kept. Members of sheep clubs which include junior farmers and boys and girls are finding their new sheep flocks to be very profitable and the success which has attended their efforts has done a great deal towards stimulating interest and establishing new flocks amongst neighbouring farmers.

During 1929 it was found that as the requests for the organizing of new sheep clubs came forward through the field men or the promoters there was little difficulty in finding ten or more junior farmers or boys and girls who were willing to assume the responsibility of the management of a sheep flock. Having ascertained the information that the necessary membership could be secured, arrangements are then made for the holding of an organization meeting at which the members present decide upon one breed for the district, all agreeing to keep the same breed of sheep. Arrangements are then made for the purchasing of the necessary ewe stock, its distribution to members and the financing of the purchases where same is necessary. Club members have the co-operation

of the Canadian Banks in providing loans for the purchase of ewes or fencing, subject to the regulations of the policy. Little difficulty has been found in interesting the local bank manager in the organization of these clubs.

During the first year after the ewes have been placed with club members they are given close personal supervision. Usually before the ewes are placed the promoter sees that the fencing and the buildings are adequate for the accommodation of the ewe flock. Other duties of supervision include winter feeding and management, demonstrations on docking, castrating, dipping, shearing and the preparation of the wool for market. Members are also given instruction on the control of parasites and through personal contact and otherwise members are given first-hand suggestions on the many details of successful flock management leading to the marketing of high grade wool and choice market lambs. As the years go by sheep club members are demonstrating their ability to handle their flocks successfully and secure good returns in the way of wool and market lambs.

RAM GRADING

In 1929 a total of 3,472 rams were graded. This indicates the appreciation of this service on the part of pure-bred breeders and the demand on the part of grade flock owners for graded rams indicates its advantage whether buying by mail order or by personal selection.

WOOL GRADING

In 1929 centralized wool grading was again carried on at Weston, Carleton Place, Lennoxville, Fredericton, Truro, Antigonish, Charlottetown and at several points on Manitoulin Island. All co-operative consignments of wool shipped for co-operative sale are graded by official wool graders. The total amount of wool graded in 1929 was 4,463,128 pounds, this being an increase of 1,009,367 pounds over 1928.

The 1929 wool clip was considered to be one of the finest marketed for a number of years. The fleeces reflected improvement due to the use of better sires. Cleanliness in domestic wools reflected better housing conditions, improved feeding racks and greater care on the part of flock masters in keeping the fleeces free of chaff and other impurities. Range wools were particularly bright due to good wintering conditions and excellent pastures during the spring. The following table shows the amount of wool graded by provinces in 1929:—

WOOL GRADING

Province	Range	Western Domestic	Eastern Domestic	Total
Prince Edward Island.....			49,285	49,285
Nova Scotia.....			69,362	69,362
New Brunswick.....			15,399	15,399
Quebec.....			77,221	77,221
Ontario.....			739,174	739,174
Manitoba and Saskatchewan.....	398,985	646,217		1,045,202
Alberta.....	1,514,454	386,712		1,901,166
British Columbia.....	230,349	233,468		463,817
Sundry.....			102,502	102,502
Total.....	2,143,788	1,266,397	1,052,943	4,463,128

A new feature of the wool grading policy in 1929 was the special service provided for pure-bred sheep breeders. Individual fleece identity tags were provided and a special wool grader was designated to handle the grading of

pure-bred fleeces, thus making it possible for each breeder to get a separate grading for each ewe or ram in the flock. A total of 242 breeders availed themselves of this service and statistics are now available showing the grade, weight of fleece and other characteristics for ten breeds of sheep covering a total of 5,105 head.

SWINE

From a market standpoint, hog prices during the present fiscal year were considerably higher than in the year previous. This is indicated by the fact that the average price for the year was \$11.20 per cwt. as compared with \$9.80 per cwt. in 1928. The situation was also more favourable from the standpoint of the producer, not only as a result of high prices, but also because of a decided improvement in the relationship between feed prices and hog prices, so that on the whole the year 1929 was a particularly profitable one for hog raisers.

In spite, however, of the fact of remunerative profits from hogs, the industry showed a decided decrease in total marketings. Owing, however, to excellent consumptive demand in Canada, the industry did not suffer from a narrower export trade to the United States and a decided falling off in exports of bacon and other hog products to Great Britain and other countries. During the year Canadian hog prices were dictated largely from domestic, rather than export demand, and the close of the year saw Canada rapidly approaching the point where consumptive demand for bacon and hog products in the Dominion was almost equal to production. Exports of live hogs for the calendar year 1929 decreased to 3,942 head, while the total volume of exports of bacon and pork products was only 38,957,400 pounds this representing a decided reduction as compared with the previous year.

Canadian consumptive demand during the year provided further evidence of our growing ability to take care of increasing supplies of pork products on the domestic market. The price at which bacon and other pork products can be sold in Canada has resulted in the maintenance of a level of hog prices throughout the Dominion considerably higher than those pertaining in the United States, and also higher than could be obtained were Canadian hog prices on the basis of world prices for bacon in Great Britain. General improvement of Canadian hogs along bacon lines continues in all provinces of the Dominion. A new feature of the year's business was the shipment of a consignment of pure-bred Tamworth hogs to Great Britain, these proving highly satisfactory from the bacon standpoint to the British breeders. An importation of Yorkshire and Tamworth swine was also made from Great Britain, largely on order for pure-bred breeders in the province of Quebec. The demand for bacon type boars throughout Canada continued good. The demand for brood sows slowed up somewhat from the previous year but had taken on new impetus before the year closed.

Exports of Canadian bacon to Great Britain, although greatly diminished, proved to be of superior quality and reports indicated that if Canadian production can be increased to a point where a larger volume of exports is feasible, these will find a ready sale in competition with the production of other exporting countries.

HOG GRADING

The revised Hog Grading Regulations passed in October, 1929, made provision for a revision of the grades so that they would be brought into line with the general improvement that had taken place in Canadian hogs since the initiation of the policy in 1922. More than six months have now elapsed since trading under the new grades became effective, and there has been a general acceptance of them as representing a sound economic basis for day to day trading in hogs.

During the initial stages of the hog grading policy, the full responsibility of grading rested with the official graders stationed at stockyards and abattoirs. The grading of hogs at large receiving centres did much to establish a basis of purchase and sale on a graded basis at these points. It developed, however, that many hogs were still being bought on a flat basis at country points. The revised Hog Grading Regulations of October, 1929, included a requirement that all hogs intended for slaughter in Canada at abattoirs should be graded at the local shipping point or that, in lieu of this, each farmer's lot should be marked with a specific mark of identity. Shippers and drovers are also required to provide a certificate of grading showing the farmer's name, address, number of hogs, and the grade or mark of identity.

In Canada to-day, there are several thousand shippers or drovers who are either grading or marking their hogs. When the hogs are graded by the drover or shipper, his work is checked by the official grader at the point of destination. At the moment the majority of all regular shippers or drovers are well acquainted with the official grades and are grading the hogs according to requirement.

With all shippers and drovers either grading or marking their hogs, farmers throughout Canada are being kept posted on the grading of their hogs. The Department naturally had to grant considerable latitude in the application of the regulations at the outset. Quite a large percentage of drovers recognized that the law had to be complied with and endeavoured to the best of their ability to comply with the regulations from the beginning. Others, and these constituted quite a number, had to be told in no uncertain terms that if they intended to continue to handle hogs they had to adjust their operations to meet the requirements of the regulations. For quite a considerable length of time, these men required careful checking up to make sure that their work was being performed in accordance with the standards as defined for the various grades.

There was a small percentage of shippers and drovers who openly evaded the requirements of the regulations. In a few cases, it was necessary to initiate court proceedings before securing an agreement on the part of such men to comply. There is still the occasional case of the indifferent or careless operator and the itinerant shipper or drover who need checking up.

As soon as handlers of hogs were made acquainted with their responsibility in regard to local grading and as soon as local grading was established, it became apparent that a goodly number of operators were still buying hogs flat from the farmer. The Department at once took steps to have shippers and drovers not only grade hogs at the local points but also to secure settlement for hogs on the basis of official grades. Where the farmers have co-operated with the Department in advising of the fact that hogs are not being bought on the basis of grade or that hogs are being settled for on a flat basis, it has been easy to enforce the regulations and ensure that the graded price gets back to the producer.

As time goes on, farmers or producers are getting better acquainted with the official grades for hogs. They are getting to know that the hog grading regulations are being enforced, that they are continuing to have a big effect in the general improvement of hogs throughout the country and that the proper way to sell hogs is on a graded basis. The weekly grading of hogs at the local shipping point by drovers and shippers, as was anticipated, is of great educational value and where the graded price gets back to the producer, he sees in dollars and cents the commercial value of hogs of the various qualities.

The value of the Hog Grading Policy in bringing about continued improvement in the quality of hogs produced can be gathered by a study of the following table:—

HOG GRADING AS SHOWN BY PERCENTAGES 1923-1929, YARDS AND PLANTS COMBINED

Where graded	Select Bacon	Thick Smooths	Heavies	Extra Heavies	Shop Hogs
Alberta.....1929	5.82	67.43	5.47	0.89	7.70
1928	6.83	69.75	5.56	0.77	8.77
1927	6.16	74.05	4.03	0.43	4.00
1926	5.55	72.79	3.29	0.50	4.45
1925	3.53	70.85	2.08	0.32	14.45
1924	3.60	76.21	4.39	0.47	7.21
1923	2.33	73.33	2.75	0.33	13.28
Saskatchewan.....1929	3.65	58.24	7.89	3.33	5.01
1928	4.50	61.21	6.54	1.86	9.56
1927	5.35	67.50	6.05	1.52	4.05
1926	4.95	69.71	6.56	2.14	2.11
1925	5.04	59.02	3.89	1.15	16.96
1924	3.99	59.05	6.01	1.43	14.26
1923	4.10	69.45	7.28	2.13	18.09
Manitoba.....1929	10.74	53.01	5.71	2.57	8.53
1928	11.18	53.20	3.68	1.62	13.66
1927	11.08	56.62	5.10	1.76	7.42
1926	8.15	58.26	6.55	2.03	8.42
1925	5.52	55.23	3.95	1.24	24.52
1924	3.92	56.51	4.88	1.40	21.14
1923	6.69	62.31	7.11	1.98	7.09
Ontario.....1929	27.17	59.70	3.09	0.25	3.87
1928	25.77	62.12	2.64	0.19	5.30
1927	25.92	60.33	4.29	0.34	5.13
1926	24.91	60.28	5.63	0.59	4.40
1925	24.80	61.02	4.01	0.43	5.35
1924	23.01	57.75	3.73	0.33	9.13
1923	20.78	57.75	6.20	0.51	10.13
Quebec.....1929	10.97	54.70	4.58	0.98	18.40
1928	11.58	55.75	2.79	0.61	22.79
1927	11.41	56.71	3.26	0.85	23.17
1926	11.11	57.08	2.67	1.26	21.59
1925	13.94	53.60	2.38	0.77	23.77
1924	13.07	46.72	2.88	0.69	30.00
1923	16.49	43.56	4.03	0.52	29.63
Nova Scotia, New Brunswick, Prince Edward Island.....1929	36.21	36.85	3.75	0.86	6.58
1928	37.10	35.44	4.45	0.88	16.36
1927	37.88	42.24	3.33	0.53	13.11
Canada.....1929	16.24	59.72	4.58	1.07	7.15
1928	16.88	61.12	3.62	0.68	9.89
1927	17.46	62.17	4.34	0.69	7.17
1926	15.66	62.56	4.94	0.95	7.18
1925	15.20	60.99	3.41	0.61	13.15
1924	14.52	59.75	4.00	0.60	13.37
1923	11.97	59.13	5.45	0.70	13.09

HOG GRADING AS SHOWN BY PERCENTAGES 1923-1929, YARDS AND PLANTS
COMBINED—*Concluded*

Where graded	Lights and Feeders	Roughs	No. 1 Sows	No. 2 Sows	Stags	Total Hogs
Alberta.....1929	6.15	0.27	2.23	1.95	0.17	100
1928	3.96	0.35	2.21	1.64	0.16	100
1927	7.87	0.39	1.85	1.09	0.13	100
1926	8.72	0.48	2.64	1.46	0.12	100
1925	4.33	0.35	2.39	1.55	0.15	100
1924	3.70	0.33	2.76	1.22	0.11	100
1923	4.28	0.30	2.24	1.04	0.12	100
Saskatchewan.....1929	12.70	0.35	4.30	2.61	0.46	100
1928	9.30	0.32	4.00	2.21	0.50	100
1927	9.20	0.37	4.14	1.45	0.37	100
1926	7.40	0.31	4.60	1.95	0.27	100
1925	8.69	0.32	3.11	1.53	0.29	100
1924	6.90	0.28	5.39	2.43	0.26	100
1923	3.00	0.35	3.67	1.62	0.31	100
Manitoba.....1929	12.74	0.11	3.01	2.00	0.29	100
1928	11.88	0.16	2.70	1.66	0.26	100
1927	12.44	0.18	3.24	1.93	0.23	100
1926	10.04	0.15	3.75	2.40	0.25	100
1925	4.39	0.11	3.21	1.61	0.22	100
1924	5.36	0.14	4.71	1.80	0.14	100
1923	9.24	0.27	3.46	1.60	0.25	100
Ontario.....1929	1.55	0.04	0.50	1.76	0.18	100
1928	1.80	0.04	0.52	1.48	0.14	100
1927	2.07	0.04	0.41	1.35	0.12	100
1926	1.73	0.07	0.38	1.82	0.19	100
1925	2.16	0.05	0.37	1.64	0.17	100
1924	3.88	0.07	0.49	1.50	0.11	100
1923	2.72	0.06	0.39	1.34	0.12	100
Quebec.....1929	6.66	0.12	1.40	2.68	0.26	100
1928	2.13	0.10	1.41	2.64	0.20	100
1927	1.76	0.07	0.53	2.10	0.14	100
1926	1.89	0.10	1.01	3.10	0.19	100
1925	1.45	0.06	0.92	2.95	0.16	100
1924	2.29	0.09	1.16	2.86	0.15	100
1923	2.20	0.22	0.55	2.65	0.15	100
Nova Scotia, New Brunswick, Prince Edward Island....1929	1.94	0.03	3.87	0.26	0.22	100
1928	0.06	0.01	4.84	0.58	0.28	100
1927	0.82	0.00	0.85	1.15	0.09	100
Canada.....1929	5.69	0.14	1.69	2.00	0.23	100
1928	4.21	0.14	1.53	1.73	0.20	100
1927	5.07	0.15	1.33	1.47	0.15	100
1926	4.71	0.18	1.63	2.01	0.18	100
1925	3.13	0.13	1.42	1.78	0.18	100
1924	3.98	0.14	1.82	1.70	0.12	100
1923	3.67	0.16	1.17	1.52	0.14	100

The above table shows the percentage of each grade of hogs for the past seven calendar years. These statistics covering seven years of hog marketing under the policy of hog grading reveal a steady improvement in quality. It will be noted that in 1929 the revision of the official hog grades eliminates the grade known as thick smooth, which is now replaced by the grade known as bacon.

BOYS' AND GIRLS' SWINE CLUBS

After nine years of general application throughout the Dominion, this policy continues to be one of the major factors in effecting swine improvement work in the three Maritime Provinces and in the four western provinces. Thousands of Swine Club members who have gained initial experience in hog raising through

these clubs are now permanent swine raisers throughout the Dominion, many of them having developed to be pure-bred breeders of considerable rank and importance.

Each year sees the distribution of large numbers of bacon type gilts, many of which are retained by members for bacon brood sows on the farms on which they are placed. Through the Swine Clubs, a definite contact is made with the parents and with neighbouring farmers. In this way, up to date information regarding feeding, the use of dairy by-products, the growing of green feeds, proper housing, swine sanitation and intelligent marketing, are disseminated throughout the rural districts, all of which tends to encourage and stabilize swine production.

The winning of first prize in the Carlot Competition at the Royal Winter Show by a carload of hogs produced by Swine Club members in Manitoba is ample evidence of the ability of the younger generation to produce market hogs of outstanding quality. In 1929 eight carloads of hogs were produced by Swine Clubs which had 100 per cent select bacon hogs, giving some idea of the extent to which these members are aware of the proper breeding, the proper feeding and the proper weights at which to market.

The Judging Competitions, local and interprovincial, which are held each year, provide a medium for giving the members definite instruction on hog judging and a special incentive in this direction is provided by the Canadian National and Canadian Pacific Railways, which each year bring the high teams for each province to the Royal Winter Fair, Toronto.

Swine Club members are each year given special direction and supervision by Sheep and Swine Promoters of the federal and provincial Departments of Agriculture. Personal contact, the holding of local meetings, general instruction in feeding and in judging, result in keener interest and a greater appreciation of swine raising possibilities of the farm. The local prize money is being contributed as follows: one-third by the federal Department, one-third by the provincial Department and one-third by the community. Prize money for the Carlot Competition and Inter-Club Judging Competition is provided by the Dominion Live Stock Branch.

The following table gives the number of clubs organized during the past year in each province:—

Province	Number of Clubs
Nova Scotia.....	1
New Brunswick.....	17
Manitoba.....	28
Saskatchewan.....	18
Alberta.....	20
British Columbia.....	17

BACON HOG FAIRS

Many districts where Swine Clubs have been in operation for a number of years have now developed to the point where this policy has served its purpose, and with the general improvement of hogs in a district, it is possible to interest all farmers in the production of better hogs. The Bacon Hog Fair provides the medium through which all farmers in a district may become exhibitors of market hogs.

In Quebec province these Fairs are held in conjunction with Bacon Hog Clubs which are authorized in districts where Farmers' Clubs have been in operation and where approved boars are in use in each club district. Bacon Hog Fairs may be organized in any season of the year, in fact it is the aim of this policy to organize the breeding of hogs so as to distribute the marketing throughout the year. Bacon Hog Fairs are most popular in the provinces of Ontario, Quebec and the Maritime Provinces. Provision is made for both market and breeding classes and the prizes are derived from equal grants from the Dominion and provincial Departments of Agriculture, supplemented by local contributions.

The Bacon Hog Fair develops local interest, provides a demonstration in co-operative marketing, provides an opportunity for demonstrating the official hog grades and illustrates the benefits to be derived from producing bacon hogs, marketing them at the right weights and selling them on a graded basis.

The following table indicates the number of Fairs held in 1929 in each province, together with the number of hogs marketed and the grading of same:—

BACON HOG FAIRS

Fairs	Market Classes	Number Selects	Per cent Selects
Prince Edward Island.....(1)	36	(Pure-bred Sale)	
Nova Scotia.....(2)	63	47	74.6
New Brunswick.....(2)	60	24	40.0
Quebec.....(32)	2,897	578	19.8
Ontario.....(2)	283	123	43.4

PURE-BRED SOW CLUBS

The Quebec Swine Breeders' Association in 1927 felt that there should be a definite policy for the specific purpose of increasing the supply of pure-bred swine stock in the province. From eight original clubs, the policy has now been expanded to include a total of thirteen. Each member purchases a pure-bred sow and a specially selected boar is loaned under the Sire Loan Policy. It was not anticipated that every member would become a constructive breeder of pure-bred swine, however, in each club district a number of the members have displayed the necessary ability for pure-bred swine raising and these men are gradually developing and improving their herds along modern methods of management. Already a considerable number of breeders have been established and will eventually play an important part in the breeding and distributing of pure-bred bacon hogs throughout the province.

The following table gives the location of the various Sow Clubs now in operation and shows the number of exhibitors, together with the number of hogs exhibited in the various classes:—

Club	Number exhibi- tors	Class 1 — Number brood sows with gilts	Class 2 — Young boars	Class 3 — Young sows	Total
Berthierville.....	15	11	11	20	42
L'Acadie.....	18	8	6	21	34
St. Alexandre.....	17	9	2	15	26
Ferme-Neuve.....	20	(Organized 1929)	.....	20	20
St. Prime.....	20	17	14	20	51
Ste. Monique.....	22	20	5	25	50
Louiseville.....	11	11	8	15	34
Ste. Angèle.....	13	11	13	17	41
Plessisville.....	15	12	12	16	40
St. Jules.....	25	(Organized 1929)	.....	25	25
St. Charles.....	11	10	6	13	29
Baie St. Paul.....	21	(Organized 1929)	.....	21	21
Coaticook.....	19	18	3	23	44

BACON GRADING

Although exports of Canadian bacon to Great Britain diminished somewhat during the year, there is still a large interest in the Dominion anxious to see Canadian bacon exports increased under a bacon grading policy. Hog graders are continually checking the live grading through to the rail, this providing the medium by which greater accuracy is attained in the grading of live hogs.

ADVANCED REGISTRATION FOR PURE-BRED SWINE

During the year the rules and regulations governing this policy were made available to all swine breeders in Canada, and although Advanced Registry was a new thing in this country, not yet out of the experimental stage, the entry of two hundred and thirty-five sows for test from all parts of Canada made it possible to give the policy a thorough trial under practical field conditions.

All sows and litters entered under the policy were inspected and tattooed. In this connection it was found that the ordinary tattooing inks generally used for this purpose with other live stock were not suitable in the case of swine due to fading shortly after its application. Many inks were experimented with and as a result, as may be judged from the work done, a satisfactory identification system has been established with the use of Chinese writing ink.

Slaughter tests of hogs were made at packing plants situated at Moncton, Montreal, Hull, Toronto, London, St. Boniface, Calgary, Edmonton and New Westminster. According to the regulations governing the policy, the Department paid the carrying charges on pigs going forward for slaughter. At the close of the year, one hundred and twenty-four sows had been represented in the slaughter test by the necessary four pigs called for by the regulations.

At the close of the fiscal year, a complete analysis of the year's work and of the performance of sows on test was made for the information of the Advanced Registry Board in making recommendation for a basis of scoring and qualifying sows under the policy. The procedure decided upon and accepted by the Department as tentative pending another year's work, provides for the scoring of sows under three main heads: 1st, Productive capacity; 2nd, Capacity of the progeny for early maturity; and 3rd, the quality of the progeny as revealed through the slaughter test. A sow to qualify must pass under all three divisions, scoring 40 under the first, 100 under the second and 75 under the third.

Under this basis of scoring, thirty-three per cent of the sows entered successfully qualified under the tentative standards, which means that they each brought to weaning age eight pigs; that the litter as represented by the slaughter test made growth, the equivalent of 200 pounds in 200 days and that the carcasses of these four pigs scored 75 points on the basis of scoring illustrated in the accompanying chart.

A review of the year's work and an explanation of the tentative standards of qualification were given general distribution in the month of March and a most general response on the part of breeders resulted. Plans have been made for further investigation of certain factors in connection with the policy on which full information was not available from this year's work in the hope that at the next annual meeting of the Advanced Registry Board, it will be possible to arrive at definite and final conclusions.

ADVANCED REGISTRY FOR SWINE—CHART ILLUSTRATING BASIS OF SCORING
(Slaughter Test)

Factors used in scoring	Weight of Carcass	Length of Side	Back Fat and Finish			Balance of Side	Belly
			Thickness	Evenness	Finish		
Perfect score	8	24	8	8	8	24	20
Standard required for perfect score.	Weight range 140-170 lbs. inclusive.	Minimum of 30 inches.	Maximum 2½ inches Minimum 1 inch.	Not more than ½ in. variation between shoulder fat and loin fat measurements.	Must be properly finished.	The middles must average 50% of average weight of the sides.	Must grade "Good" or "Excellent."
Points deducted for each fault from standard.....	2	See Note (1)	2	2	2	2	See Note (2)

Scoring for Length (1) For each side less than 29 inches 6 points are deducted. For each half inch or fraction thereof below 30 inches down to 29 inches, 1 point is deducted.

Scoring Bellies (2) For each belly grading "Fair" 3 points are deducted and for each belly grading "Poor" 5 points are deducted.

BACON LITTER COMPETITION POLICY

In 1929 this policy was inaugurated in the province of Ontario and as the results were so satisfactory, the policy has now been approved for the Dominion.

The Bacon Litter Competition has as its objective the establishment of a standard of excellence for grade brood sows kept by farmers. It is recognized that those sows which are prolific and rear large litters of select bacon hogs, that are good feeders making good gains at a low cost, are valuable as improvers of commercial hogs. This competition aims to give such sows prominence as breeders in their respective communities in the hope that their female progeny will be selected as foundation brood sows for the district.

Fifty per cent of the prize monies is paid by the provincial department and the balance by the Dominion Live Stock Branch when the policy is approved in a province. Competitions are open to all bona fide farmers in any province having sows, which have farrowed within specified dates. An eligible litter contains at least nine hogs, all of which must be marketed at the same time, that finish to market weights of 190 to 230 pounds under seven months of age, grading out to a minimum percentage of selects as agreed upon in each province.

Litters are scored according to the official weight at time of marketing and quality as determined by the grading of the hogs and the uniformity of the litter. In the past, considerable criticism has been directed against the bacon hogs, the argument being made that pigs of this type do not finish for market under seven months. The results obtained from 118 litters, which were entered in the competition in 1929, indicate that litters of nine pigs or over from bacon type sows are easily finished under seven months of age, in fact the majority of the litters which were in the Competition finished under six months averaging 200 pounds or better per pig. These litters were all fed by farmers who keep from one to three brood sows, but who are interested in the production of select bacon hogs and who realize the value of good brood sows in keeping down production costs. Quite a number of the litters entered in this competition graded out 100 per cent select bacon hogs.

As was anticipated, the competition centered attention on those brood sows which made a good showing in the competition and a large number of the gilts from the litters were selected by other farmers for breeding purposes. It is expected that this competition will be the means of eliminating a large number of undesirable and unprofitable brood sows and will provide a source of foundation stock known to farmers which will be available as brood sows at a price very little above market values.

The following summary shows the percentage of selects, average age, average weight and average number of pigs in a litter which were marketed from sows that qualified:—

Total number of pigs marketed from qualified sows, 560; total number of selects, 331; percentage selects, 59.1; average weight of pigs when marketed, 216.6 pounds; average age of pigs at marketing, 181.4 days (6 months); average number of pigs to litter, 11.2.

SHEEP AND SWINE DEMONSTRATION WORK

The organization of new Sheep Clubs and the organization of Swine Clubs, Sow Clubs and Bacon Hog Clubs, has necessitated the conducting of a large number of sheep and swine demonstrations. Although a large amount of this work has already been done, it is necessary to conduct demonstrations on docking and castrating, dipping, shearing and rolling and tying the fleece, in order that new sheep raisers may get first hand information on these practices. Market

cuts for undocked and uncastrated lambs have directed special attention to these operations and each year a larger volume of trimmed lambs is going forward to market.

The concrete dipping tank has proved so satisfactory for community dipping that larger numbers of requests are coming to hand each year for the use of forms and assistance in the construction of these tanks.

A number of sheep shearing competitions have been organized in connection with Sheep Clubs. These, with the large number of sheep shearing demonstrations, which are held each year, provide a medium through which new sheep owners are advised as to the proper methods of shearing and rolling the fleece for market.

In 1929 many drovers and shippers requested assistance in undertaking the grading of hogs at local shipping points under the new hog grading regulations. This assistance usually took the form of a hog grading demonstration and, in addition to providing the drover with the necessary instruction as regards the official hog grades, acted as an educational feature of hog marketing for the farmers.

SHEEP AND SWINE MARKETING COURSES

Sheep and Swine Marketing Courses were again held during the winter months. One of the special features during the present series was hog grading and hog marketing. Good hog prices and improved feed prices tended to increase interest in hog raising, consequently, feeding and management of hogs in relation to marketing was an important part of the program.

Control of parasites in sheep and swine is now recognized to be of prime importance in the economical production of market lambs and hogs. At all courses attention was drawn to the common parasites of both sheep and swine and when possible specimens were produced from post mortems of affected animals. Lectures illustrated common means of prevention and treatment.

In addition to the usual demonstrations on modern practices in sheep and swine management, judging classes were used to illustrate breed types in both sheep and swine, as well as market requirements in finished market hogs and lambs. Lectures on feeds and feeding dealt with rations for breeding stock, growing pigs and feeding for finishing purposes.

These courses seem to be of special interest to farmers both young and old, particularly as the marketing is being recognized as of great importance if the highest returns are to be received.

CO-OPERATIVE SHEEP AND SWINE MARKETING

Each year sees a larger field for co-operative sheep and swine marketing. Community production as encouraged by the various policies has resulted in the production in many districts of a larger volume of better quality, well finished hogs and lambs. Where districts have reached the point in animal production where weekly shipments are necessary to take care of stock offered, it becomes necessary to organize shipping associations. In the Maritime Provinces a considerable number of new clubs were organized during the year, they in turn becoming amalgamated with the Maritime Live Stock Marketing Board.

A new feature of co-operative marketing introduced during the year in the Maritime Provinces was the contract. A number of districts in the province of Nova Scotia signed a yearly contract and shipping associations operating in these districts were very successful in their operations during the year. Public opinion in the province of Quebec is also moving very fast towards the principle of operations under the contract and it is expected that 1930 will see a considerable portion of the province operating on this basis.

The organization of the Canadian Live Stock Producers Ltd., which is in reality a link up of Provincial Live Stock Co-operative Organizations has been

an important factor in eliminating selling competition as between co-operative organizations. The narrowing of market outlets to foreign countries for both lambs and hogs necessitated the development of organization in Canada to eliminate congestion of market receipts at any marketing point and to provide for the orderly distribution of market receipts with a minimum of marketing costs to the producer.

SIRE LOAN POLICY

The loan of rams and boars are now restricted to Boys' and Girls' Sheep Clubs and Boys' and Girls' Swine Clubs or to Associations organized in accordance with the Federal Policy. In the case of clubs, in view of the quality of the breeding stock which club members own, it is necessary to select animals of outstanding quality, consequently, although the number of animals loaned is considerably reduced as compared with last year, the general quality is the best that can be purchased.

SIRE PURCHASE POLICY FOR RAMS AND BOARS

Owing to the large extent of Canada and the fact that many farmers are resident in outlying districts of the province, assistance in the purchasing of breeding sires is a service which individual farmers and associations are coming to use more and more. Ram purchasing delegates in the province of Quebec are appointed by clubs or districts and where orders for twenty-five or more pure-bred rams are on hand, the purchase of these rams through a purchasing delegate reduces purchasing costs and, at the same time, insures selection of better quality stock for the district. The expenses of these delegates are paid by the Dominion Live Stock Branch. The purchase of carloads of breeding rams and even breeding ewes and brood sows under the Sire Purchase Policy is steadily becoming more popular with a large number of associations, particularly as sheep and swine promoters of the Dominion Live Stock Branch are constantly in touch with pure-bred breeders and know where good stock can be purchased in carload lots. In this way rams, boars, breeding ewes and brood sows are delivered to associations with a minimum of freight charges over and above the cost price. The Sire Purchase Policy is particularly adapted for newer districts and those distant from pure-bred breeding centres.

SHEEP AND SWINE EXHIBITS

In 1929 special sheep and swine exhibits were prepared for the Western Fair Circuit, these being also used at the Royal Winter Fair, Toronto. Sheep and swine exhibits were also exhibited at the Canadian National Exhibition, Toronto, Western Fair, London, and at the Class "A" Fairs in Quebec and at the Montreal Lamb Show and Sale.

The 1929 exhibits illustrated the improvement in Canadian hogs resulting from hog grading. One section showed the conditions under which Canadian hogs are now raised. Good buildings, the use of forage crops and home-grown grains combine to produce a quality of bacon and pork products which are unexcelled the world over. Sheep raising in its more modern aspects was also illustrated in the sheep section. Canadian lamb produced on Canadian pastures and marketed at ideal market weights produces a meat which is relished by Canadians and tourists alike.

A special exhibit was shown at the Canadian National Exhibition and at the Montreal Lamb Show, comprising a litter of pigs in the Bacon Litter Competition. The litter shown graded all Select Bacon hogs and finished for market under six months of age, the average weight per pig being over two hundred pounds. This exhibit was a very popular one illustrating the quality and easy feeding qualities of choice quality Select Bacon hogs.

GOAT EXTENSION WORK

Interest in goat raising continues at a high point in a number of the provinces, particularly British Columbia. During the year five herds were entered in the Record of Performance Test for goats, ten head having qualified. The highest test was made by Nubian doe "Shirley Rona" —296— owned by Harold G. Morson, New Westminster, B.C., whose milk yield was 2,595 pounds and butter fat 132.4 pounds. New entries continue to come to hand indicating the popularity of the Record of Performance Test and its advantages in popularizing the milking quality of milk goats. The demand for breeding goats continued good throughout the year. One of the problems affecting the further development of the goat industry is the unavailability of breeding stock in certain sections of the Dominion. Every effort is being made to assist in the further distribution of good milking strains of milk goats as required.

MARKETS INTELLIGENCE AND STOCK YARDS SERVICES

The Markets Intelligence and Stock Yards services, through regulation and intelligence service, promote efficiency in the sale and purchase of our annual surplus of commercial live stock, the value of which ranges between \$125,000,000 and \$150,000,000. The strict supervision of stock yard operation and facilities, and the provision of an elaborate markets news and daily market wire service, contribute in a very practical manner to economic and efficient marketing.

Through the Live Stock Commissioner, regulations are enforced governing the construction, maintenance and operation of public stock yards through the Dominion, and the methods employed in the actual sale and purchase of all live stock marketed at such yards. As well, the Markets Intelligence Service makes available to producers and trade, detailed information as to supply and demand of commercial live stock marketed at, or passing through any or all of these yards. Further, this service includes a bureau of supply and demand intelligence in regard to general live stock and meat trade, both domestic and foreign; develops forecasts; and issues daily, weekly, monthly and annual reviews and comments on supply and demand on domestic and foreign markets.

The stock yards duties are discharged by qualified officers of the branch, stationed at each of the public stock yards, and under the direction of the chief of the stock yards services. These yards, nine in number, are located at the following places: Calgary, Alta.; Edmonton, Alta.; Saskatoon, Sask.; Prince Albert, Sask.; Moose Jaw, Sask.; Winnipeg, Man.; Toronto, Ont.; East End, Montreal, P.Q., and West End, Montreal, P.Q.

The markets reports data and allied information is obtained through co-operation between the stock yard agents and their assistants, and the Markets Intelligence editorial and statistical staff at headquarters.

During the past year, the market conditions influencing the sale of this stock were analyzed for the benefit of producer, trader and consumer, and, as well, permanent statistical records made of each purchase and sale for future reference.

The complete rebuilding of the stockyard facilities at Point St. Charles, Montreal, P.Q., constitutes one of the greatest forward movements in the interests of the live stock industry of the province of Quebec and, as well, of Canada as a whole. These new yards, built by the Canadian National Railways, meet every requirement as laid down under the Live Stock and Live Stock Products Act. Point St. Charles has now the most modern, substantial and complete stockyard facilities on the North American continent. During 1929-30 a most up-to-date and substantial Live Stock Exchange building was completed at the Point St. Charles yards, by the railroad.

Revised rules and regulations under the Amended Act have been approved for all exchanges. Trust accounts for the handling of the proceeds of sales of live stock sold on commission are now operated, under the Act, by all commission merchants and co-operative associations doing business at public stockyards. As well, the majority of the live stock dealers have been bonded and the remainder are in process of being bonded. Also, the registration is completed of all persons and firms doing business at stockyards. In a word, strong progress is being made in the business of making Canada's stockyards system the best organized and operated on the North American continent, in the interest of all parties concerned, but primarily in an effort to serve better the live stock industry.

Forty-eight commission firms and co-operative associations operating at the nine stockyards in Canada are now registered and bonded. Also forty-seven live stock dealers are registered and bonded. Since September, 1928, a departmental accountant has been employed to inspect live stock shippers' trust accounts throughout Canada.

The chief activities of the services are hereunder enumerated:

1. Enforcement of regulations, as provided under the Live Stock and Live Stock Products Act, resulting in

- (a) The bonding of commission men, operating on public stockyards,
- (b) The operation of Live Stock Exchanges under Government supervision,
- (c) The regulation of service charges,
- (d) The instituting of Trust Accounts and appointment of travelling accountant,
- (e) Improvement in, and supervision of the accommodation provided for live stock, and
- (f) The regulating of the quality and cost of food supplied.

2. Officers of the branch located at the central stockyards at Montreal, Toronto, Winnipeg, Calgary, Edmonton, Prince Albert and Moose Jaw and Saskatoon graded for publicity purposes all live stock offered for sale, obtained detail as to the selling price, origin and disposition of the stock and, as well, the general condition of supply and demand.

3. The stockyards officers supplied the press with daily market news, letters and representative live stock sales. These, together with the weekly, monthly and annual analysis of supply and demand, have practically eliminated all other markets information services. Accurate analysis and quick service has in this way taken the place of the often contradictory and ambiguous statements of market conditions formerly in circulation.

4. The inter-Stockyards Telegraph Service inaugurated during 1919 was continued throughout the year. Telegrams are prepared by each stockyard agent, after a careful analysis of the condition of trading, and are wired each day as soon as the market is established, to the other stock yard agents. Previously, only those who could afford a telegraph service were able to benefit through immediate knowledge of the day's trading conditions at other than their own market.

5. The Daily Press Telegraph Service, inaugurated in 1919, is being continued. This consists of analysis of the conditions of supply and demand, telegraphed each day over the Canadian Press Limited, for publication in the daily news press of Canada. These wires are prepared by the officers at each of the yards at 11 a.m. and 4 p.m. daily, and appear the same evening and the following morning in practically every paper in Canada.

6. The weekly Markets News Service is being provided to the agricultural press of Canada, to district representatives of agriculture, to a selected producers mailing list, to the various provincial Departments of Agriculture, and to the British and American trade. This service consists of an analysis of live

stock supply and demand; comments on prospects for future markets; statistical tables showing the grading, numbers, average prices, price range for bulk of sales and top prices of all live stock offered for sale, the disposition and comparative receipts of the same; the grading of hogs under the Hog Grading Policy; and the exports of live stock to foreign markets.

7. To meet a growing demand for the same, the Markets Service undertook in March, 1925, the translation into French of the editorial section of the weekly Live Stock Market Report. The French edition is being mailed to the French press, agronomes in Quebec, and to a list of live stock producers who have requested the report.

8. A special report on the opening market of each week is prepared by the stockyard representatives and sent to the Farm press in time for publication in the current issue.

9. Each month, publicity is given to the live stock industry by the distribution of information on domestic and foreign crops, weather conditions, live stock and allied industries.

10. Memoranda on production, distribution and consumption of live stock and live stock products, both domestic and foreign, are prepared for the information of officers of the Department and outside parties.

11. This service continues to build up an information bureau on the statistical position of the live stock industry, general conditions under which live stock production is undertaken, the foreign live stock situation, the world's animal food-stuffs situation, the condition of the import and export trade in live stock and live stock products, and the financial conditions influencing the industry.

12. The service is recording the point of origin, class, grade and sex of all stock offered for sale at stockyards. These records cover the sales during the past six years, and are compiled in such a way as to be of value in estimating the condition and extent of the marketable surplus, either locally, provincially or for Canada as a whole. A monthly statement is sent to each of the agricultural representatives in the various provinces of Canada, showing the shipments from his particular county, in detail, to public stockyards, abattoirs, and on export.

13. The inspected packing plants throughout the Dominion continue to supply weekly statements as to their country purchases. As a large percentage of the total annual slaughterings by inspected establishments are not sold on the public market, the information obtained is indispensable to a complete survey of the supply and demand situation.

14. Through arrangements between the Department of Agriculture and the Department of National Revenue, the Branch records and issues information covering the origin and destination of all classes of live stock exported from the Dominion. This information completes the record of the total movement of Canadian live stock during any period of the year, and allows for the working out of formulae on which to estimate probable production and distribution.

15. A weekly cable service of the British market for Canadian cattle and bacon is telegraphed by the Division to the Canadian newspapers. The information is being supplied by the most reliable operators on the markets at Glasgow, Liverpool, and London. These cables are elaborated in the Branch and given the widest publicity possible through the medium of the associated press of Canada and our periodical publications.

16. A daily wire service is operative between the stockyard officers and the United States markets, with a view to obtaining exact and immediate knowledge of the prospects for export. Considerable financial benefit to the live stock industry is resulting from this service, shippers now being better able than heretofore to estimate the margin between domestic and foreign market prices before making shipment.

17. The Tenth Annual Review of the live stock and meat trade situation has been published and distributed.

18. The Tenth Annual Report on the origin and grades of commercial live stock has been published and distributed.

19. The policy whereby immature calves offered for sale on public stockyards are subject to condemnation, was again administered by the Live Stock Commissioner through the stockyards representatives. This policy has been effective for a number of years and has resulted in marked improvement in the quality of veal offered for public consumption.

20. The Markets staff is taking care of the compilation of the statistical information in connection with official hog grading under the Federal Hog Grading Policy. The stockyards agents co-operate with the hog graders in promoting satisfactory development of grading of hogs at yards.

21. The stockyards agents have extended their activities toward promoting familiarity with required market types of live stock. On request, the agents have addressed meetings, paid visits to farms for the purpose of grading the stock into the various classes, and, as well, have encouraged the clearance of unsuitable feeding stock and the purchase of that of good feeding type and quality.

22. A radio markets and agricultural news service developed during the spring of 1924 has been appreciably extended. Under arrangements with the Canadian National Railways Radio Department, the Markets Service broadcasts the latest reports on the live stock markets in Canada twice each week, supplementing the live stock, poultry, farm produce, crop and weather reports with talks on farm practices and general agricultural developments. At present, this service is being broadcast weekly from the following cities: Moncton, Toronto, London, Montreal, Quebec, Winnipeg, Calgary, Edmonton, and twice weekly from Ottawa. In addition, daily reports are broadcast from Moncton, Montreal, Ottawa, Toronto and Winnipeg, giving a summary of quotations on the same morning's markets. Live stock markets, dairy produce, eggs and weather report data make up the programs, and are especially designed to be useful to the producers in Eastern Canada.

During 1930-31, this Division will confine its efforts to enlarging further the projects already in operation.

THE SEED BRANCH

The Seed Branch encourages the production of superior seeds for domestic requirements and export, performs field inspection of seed crops for registration and certification as to purity of variety and quality, grades all field seeds offered for sale on the basis of control samples or of official samples drawn by inspectors; maintains laboratories for the analysis of seeds, feeding stuffs, fertilizers, binder twine, insecticides and fungicides; supplies markets information and develops the marketing of these products and of hay and straw which are also graded on request; administers the Seeds Act, Feeding Stuff Act, Fertilizers Act, Inspection and Sale Act, and Agricultural Pests' Control Act. The Branch organization includes four main Divisions, and for the enforcement of the Acts, Canada is divided into seven inspection districts, each supported by a service laboratory.

THE LABORATORY DIVISION

The work of this division is to test the various commodities controlled by the Acts administered by the Seed Branch, and embraces the testing of seeds for purity and germination; the chemical and microscopical analyses of feeding stuffs, fertilizers, insecticides and fungicides; and the testing of binder twine.

The seven seed laboratories serving the seven inspection districts are situated at Sackville, Montreal, Ottawa, Toronto, Winnipeg, Saskatoon and Calgary. The total number of samples tested at all the laboratories was some-

what smaller than during the previous year, largely because of the good harvest weather in Western Canada. All chemical analyses are made at Ottawa, the microscopical analyses being made at Ottawa and Toronto. The following table shows the number of samples received in each laboratory during the past year, and their sources:—

	Trade	Customs	Official	Total
Sackville.....	690	491	1	1,182
Montreal.....	3,360	1,804	1,013	6,177
Ottawa.....	7,049	1,457	1,724	10,230
Toronto.....	8,138	4,967	583	13,688
Winnipeg.....	4,838	1,888	834	7,560
Saskatoon.....	8,864	403	708	9,975
Calgary.....	8,310	1,936	741	10,987
Totals.....	41,249	12,946	5,604	59,799

Trade refers to samples sent in by merchants, farmers and institutions.

Customs refers to samples taken by Customs or Seed Branch officials in accordance with the Seed Importation Regulations.

Official samples are those taken by inspectors from lots which are sold or offered for sale and suspected of violating the Acts.

The samples of seed received are analyzed for purity or germination, in many cases for both, particularly the cereals and grasses. In the following table the number of purity and germination tests are shown for each laboratory:—

	Purity	Germination	Total
Sackville.....	1,195	1,238	2,433
Montreal.....	5,804	5,840	11,644
Ottawa.....	7,479	9,128	16,607
Toronto.....	14,115	13,944	28,059
Winnipeg.....	4,833	7,573	12,406
Saskatoon.....	6,271	8,627	14,898
Calgary.....	5,017	10,274	15,291
Totals.....	44,714	56,624	101,338

The total of 101,338 tests is an increase of 1,337 over the preceding year.

The samples of seed received are distributed quite unevenly throughout the year, the bulk of the samples being received during the months of December, January, February and March. A small permanent staff is retained during the entire year, temporary help being taken on during the busy months. The following table shows the distribution of work over the different months of the year:—

	Purity	Germination
	%	%
January.....	14.3	14.2
February.....	15.7	16.1
March.....	17.7	15.7
April.....	11.4	11.6
May.....	7.7	8.1
June.....	4.6	4.7
July.....	2.0	1.3
August.....	1.7	1.5
September.....	2.7	2.6
October.....	6.7	7.6
November.....	7.2	8.5
December.....	8.3	8.1
	100.0	100.0

TESTING OF SEEDS TO DETERMINE PURITY OF VARIETY

The establishment of seed-testing stations in other countries, commencing nearly sixty years ago, gradually led to the dumping of inferior seeds on the markets of countries where seed testing and seed control had not been established. Seed testing and seed legislation, therefore, became necessary as a measure of protection to Canadian agriculture, but this control has thus far been restricted to quality of seed in respect of germination and weed seed content.

In recent years a third and highly important division of seed-testing work has been instituted in other countries for the purpose of restricting the sale of seeds that are not true to kind and variety, and as the field root and garden vegetable seeds of commerce in Canada continue to be largely imported, it has been deemed advisable to institute this third division of seed-testing work in order that we may have from year to year precise information as to the quality in respect of trueness to kind and variety of the seeds that are being imported for commerce.

In connection with the seed laboratory recently established at Sackville, N.B., for the service of the Maritime Provinces, a small area of land was acquired on which to make growing tests principally of the imported seeds of field root and garden vegetable crops for which descriptive standards of characteristics for each variety had been established by Canadian plant breeders. Seven hundred tests of these imported seeds were made during the past year, each sample being tested in triplicate. Samples of all imported seeds are taken for analysis before the seed is released from bond by officers of the Department of National Revenue, and from these samples those to be submitted to a growing test were taken. The results of last year's growing tests were furnished to the individual importers of the seed, together with the intimation that the results may be published for the information of the public. The information thus derived will also be placed before the Advisory Board under the Seeds Act.

The results of this work thus far would seem to indicate the real need for enlarging this division of seed-testing work.

EDUCATION AND RESEARCH

Some of the major undertakings now in progress in this Division are: the preparation of a descriptive catalogue of seeds with illustrations; a study of the catalase method for the determination of the germination power of seeds; the determination of seed-borne diseases; investigations of the hardseededness of clovers as affecting their agricultural value; seed dormancy problems, particularly in regard to carrot seed; morphological seed studies of the genus *Agropyron*.

Considerable work has also been done in order to correlate laboratory germination with field germination, especially in regard to clovers. The Laboratory Division again co-operated with the Inspection Division in investigations of a more practical nature, such as seed drill surveys for the purpose of ascertaining the quality of seed used by farmers in different districts.

All of our seed laboratories have maintained their position as members of the International Seed Testing Association, and thus may be regarded as competent to do seed-testing work and issue reports thereon that may be acceptable in the adjustment of disputes pertaining to international commerce in seeds. This association each year endeavours to ascertain the efficiency of each member laboratory by submitting a series of samples of seeds for test and report.

The large and small weed seed collections were distributed as usual to farmers, merchants, and schools. Large collections were also prepared for our laboratories at Sackville and Saskatoon, and smaller collections were exchanged with other laboratories.

BINDER TWINE INSPECTION

Under the Inspection and Sale Act inspectors took 308 samples of binder twine to determine the correctness of the guaranteed number of feet per pound. Of this number 245 were of Canadian make and 63 of imported twine. Only eight samples exceeded the 5 per cent shortage, the limit of tolerance prescribed by the Act. Three were Canadian and five imported. It was found that 180 samples, or 58.4 per cent of the total, had an overage or more feet of twine to the pound than were actually guaranteed.

MICRO-ANALYSIS OF FEEDING STUFFS AND FERTILIZERS

During the year 1,245 samples of feeding stuffs were examined microscopically. Most of these were submitted by the inspectors, but a number of them were sent in by farmers and were accompanied by inquiries as to their value or complaints of results obtained in their use. The feeds examined may be classified as follows:—

Commercial mixed feeds.....	604
Commercial unmixed feeds (Manufacturers' by-products).....	261
Mill feeds.....	305
Chops.....	73
Miscellaneous.....	2

The results of these examinations suggest that certain manufacturers are not sufficiently careful in mixing, while certain others are at fault in not adhering strictly to the ingredients given when registering their products. The analysis of several samples of each registered mixed feed each year seems necessary for the protection of the public.

The analysis of samples of bran, shorts, middlings, and feed flour shows that these mill products are becoming quite standard in quality. Scourings and weed seeds were found only in a few samples this year. Mill screenings which, like the other mill products, are sold without registration, are very variable in quality. Excess of vital weed seeds was the chief infringement noted, but excess of injurious weed seeds and adulteration with inferior cereal products were also reported.

Only one sample of chop feed submitted for analysis appeared to have been deliberately adulterated. Weed seeds, injurious weed seeds, and vital weed seeds in excess, however, were found in a number of others.

In addition to the feeding stuffs, six samples of fertilizers were analyzed. All of these were being sold without registration, being subject only to Regulation 1 of the Fertilizers Act. Three of them were found to contain materials in addition to those claimed on the label. All of the work done in the examination of fertilizers leads to the conclusion that microscopical analysis would be useful in their control.

Several investigations were carried on during the year for the purpose of establishing new methods of analysis. A quantitative method for determining the amounts of various cereals present in cereal mixtures was tested. Another, for accurately determining the percentage of hoof in abattoir products, was investigated. New ways of detecting molasses and cod liver oil, when present in small quantities, were also tried. The results of these, when warranted, were incorporated into the routine laboratory practice.

CHEMICAL ANALYSIS OF FEEDING STUFFS AND FERTILIZERS

Owing to the fact that the laboratory was partially demolished during the past year, the number of samples analyzed was considerably below that of the former year. The construction of an addition to the central heating plant, which is to be used to heat the new Confederation Block and which is located immediately underneath the laboratory, was the reason for the change in the quarters. In all 1,315 samples of feeding stuffs were received and 120 samples of fertilizers.

These samples are received chiefly from the Seed Branch inspectors, who take them from bags and packages on the open market and also at the place of manufacture. A fee of \$10 is charged to others for the chemical analysis of a feeding stuff, and \$5, \$10 or \$15 for a fertilizer, depending on the amount of work required. The samples may be classified as follows:—

FEEDING STUFFS

Mixed feeds.....	592
Bran.....	101
Shorts.....	120
Middlings.....	57
Feed flour.....	22
Screenings, scourings and scalplings.....	78
Oat by-products.....	44
Other cereal products.....	103
Packing house by-products.....	92
Oilcakes.....	45
Miscellaneous.....	45
Flour.....	16

FERTILIZERS

Mixed.....	27
Pure salts.....	35
Basic slag.....	28
Packing house by-products.....	20
Acid phosphates.....	7
Miscellaneous.....	3

The samples which were received in excess of this number were analyzed by official analysts under the Act outside of Ottawa.

THE AGRICULTURAL PESTS' CONTROL ACT

This Act was passed in 1927 and came into force in January, 1928. Since that time a number of preparations have disappeared from the market due to the fact that when they were investigated they were found to be of little or no value. Others have been withdrawn from sale for the reason that the volume of sale did not warrant the expense of registering them. In spite of this, however, a net increase in number is observed in practically all classes registered. The following table compares those registered in 1928 and in 1929:—

	1928	1929
Fly sprays.....	32	39
Rat and gopher poisons.....	18	27
Weed killers.....	11	17
Arsenical preparations.....	51	51
Flea, lice and roach powders.....	34	45
Nicotine preparations.....	15	13
Dips, disinfectants and coal tar.....	24	26
Lime sulphur sprays.....	12	12
Sulphur and sulphur dusts.....	10	8
Heavy oils and emulsions.....	13	13
Bordeaux mixtures.....	13	21
Fungicides.....	23	24
Miscellaneous.....	16	16
	272	312

Insecticides, fungicides, weed killers, and rat and gopher poisons must be registered under the Act and have a registration number assigned to each preparation. The cost of registration is \$20 for each preparation and is renewable annually.

The majority of the brands registered in 1929 were sampled and analyzed. Some showed a wide divergence from the guaranteed analysis, but on the whole they were quite satisfactory. The manufacturers of the products which showed a deficiency were warned to bring their preparations up to the standard required.

THE SEED DIVISION

The work of the Seed Division includes the study of foreign and domestic seed legislation and of import and export regulations in effect in all countries exporting or importing seeds. This study is made with a view to drafting new or redrafting existing control measures to be submitted for the Minister's consideration. The Division deals primarily with the operation of the Seeds Act and regulations thereunder. Attention is given to seed production, to seed supply as between districts and provinces, to international trade in seed of all kinds, and to the preparation of exhibition material for publicity and educational purposes.

REGULATIONS UNDER THE SEEDS ACT

The Advisory Board under the Seeds Act operates with the Seed Commissioner as chairman and the Chief of the Seed Division as secretary, and includes an equal representation of seed growers and seed merchants and the chairman of the Agricultural Committee of the House of Commons.

The Advisory Seed Board was not convened in 1929. Resolutions from the Canadian Seed Trade Association and the Canadian Seed Growers' Association, in respect of amendments to the regulations under the Act, were submitted to members of the board, and the following suggested amendments were approved by the Minister.

The minimum percentage germination for wheat and oats under table 1, alfalfa under table 2, and buckwheat under table 4, were amended as follows:—

	Minimum percentage germination							
	Wheat		Oats		Alfalfa		Buckwheat	
	Old	New	Old	New	Old	New	Old	New
Registered No. 1.....	90	95	85	90	90	85		
Registered No. 2.....	85	90	80	85	85	80		
Registered No. 3.....	75	85	70	80	80	75		
No. 1.....							90	80
No. 2.....							85	75
No. 3.....							80	65

Footnote (c) under table 5, page 21 of the regulations, was also amended to change the date September 1, 1929, to September 1, 1930.

Control measures included under the Seeds Act prohibit the use of false or spurious names and misrepresentation as to variety or description of seeds or plants in any form of advertising or otherwise. Canadian and foreign seed catalogues are checked by the Seed Division, and seedsmen communicated with in respect to making necessary changes in catalogues and submitting samples of new varieties to have tested and licensed for sale in Canada in order to comply with the provisions of the Seeds Act. Variety names generally employed in Canada during the year ending March 31, 1923, are allowed, and provision is made for licensing new variety names on the basis of a report made by any plant

specialist designated by the Minister. During the year the following new variety names for the kinds specified were licensed for general use in Canada:—

Kind of Seed	Variety
Barley.....	Plumage-Archer Burbank Hulless
Broccoli.....	Italian Green Sprouting Sutton's Second Early Roscoff
Corn.....	Groff Golden
Flax-fibre.....	J. W. S. Fibre Flax
Grass—western rye.....	Mecca
Mangel.....	Alliance Globe Superlative
Melon—musk.....	Superfecto Sutton's Scarlet Hero
Potato.....	McLelan's Seedling
Swede—mangel.....	Majestic
Wheat.....	Pelissier

Progress is being made in establishing standard varietal descriptions and type photographs of field roots and garden vegetables. A survey of vegetable seed production in the Pacific Coast states was made by the Chief of Seed Division. Information was gathered on the growing and cleaning of these seed crops which has been of assistance to vegetable seed growers and has served as a guide in preparing seed importation regulations under the Seeds Act.

Trueness to variety tests of garden seeds were conducted at the Seed Branch trial grounds, Sackville, N.B., and the Horticultural Division trial grounds, Central Experimental Farm, Ottawa. One hundred and sixty-three samples of carrots, two hundred and twenty-two of beets, and two hundred and ninety-seven of peas, representing all shipments of these seeds imported into Canada, were assembled and forwarded for testing. The results of the tests were later compiled and published. Some samples were found to be very true to variety, while others were very mixed. Trueness to variety tests are being continued at Sackville and Ottawa trial grounds.

SEED IMPORTATION REGULATIONS

Regulations which govern the importation of seeds have a very important bearing on Canadian seed supply. They are applied in co-operation with customs officials so that no serious inconvenience is caused to importers. They embody control measures equivalent to those of other countries, and their operation precludes the admission of seed of a quality which could not legally be sold in the country of origin. The following table includes the principal kinds and quantities, with countries of origin, of seed imported into Canada during the year:—

Kind of Seed	United States									
	lb.	British Isles	New Zealand	Holland	Germany	France	Denmark	China	Japan	Italy
Alfalfa.....	567,406	12						lb.	lb.	lb.
Asparagus.....	28,523			55		13				
Barley.....	40,708	2,768								
Beans (field).....	347,704	20,637		4,248		799				
Beans (garden).....	114,231	7,770		9,110	421,906	142		6		
Beet (sugar).....	97,841	7,927		7,605	88,019	8,157				
Beet (garden).....	11,784	1,352	5,936							
Blue grass.....	275,615	784								
Brome grass.....	34,994									
Brussels sprouts.....	61	68		90		3	53			
Buckwheat.....	2,573									
Cabbage.....	2,916	1,392		2,609		446	2,440			
Carrot.....	52,388	3,455		1,394	351	2,004	25			
Cauliflower.....	337	71		397		31	639			
Celery.....	585	45		31		109	2			
Citron.....	1,184									
Corn (field).....	1,098,344									
Corn (garden).....	966,262	5,600								
Corn (pop).....	2,106									
Creeping bent grass.....		1,560			218					
Cress.....	177	578		1,342		941				
Crested dog's tail.....	526	12,196	4,760	200						
Cucumber.....	30,886	5		10		810				
Endive.....	437	6		304		304				
Fescue (chewing's).....	40,688	884	211,958							
Fescue (other).....	1,272	2,116	12,080		4,779	2,500				
Flex.....	508									
Flump.....	71,720									
Herbs.....	545	550		288		94	105			
Leek.....	364	523		134		84				
Lettuce.....	15,433	99		341		220	5			
Mangel.....	9,936	52,284		9,030		39,420	750			
Millet.....	207,219									
Musk melon.....	2,379	2								
Mustard.....	23	56		66,020						
Oats.....	129,325	100								
Onion.....	42,480	2,909		587	2	1,078				360
Orchard grass.....	6,629	16,020	400	4,420						
Other grasses.....	15,592	16,265	4,720	3,750						
Parsley.....	2,784	485		251		254		5		
Parsnip.....	7,017	3,338		1,470		88	2			
Peas (field).....	117	1,500	6,953							

Kind of Seed	United States	British Isles	New Zealand	Holland	Germany	France	Denmark	China	Japan	Italy	Russia	Man- churia
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Peas (garden).....	3, 059, 590	369, 080	12, 000	23, 356	.....	13, 412	.....	30	.....	.....	.....	.....
Pepper.....	285	2	.....	2	.....	55	.....	.....	.....	.....	.....	.....
Pumpkin.....	3, 485	.....	.....	.....	.....	176	.....	7	.....	.....	.....	.....
Radish.....	13, 843	16, 605	.....	18, 523	340	2, 057	50	190	50	.....	.....	.....
Turnip.....	9, 300	14, 522	.....	94, 950	5, 996	.....	.....	.....	.....	.....	.....	.....
Rape.....	58, 022	248, 510	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Red clover.....	160, 955	224	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Red top.....	110	151	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
Rhubarb.....	110	151	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
Rutabaga.....	681	20, 875	.....	23, 335	.....	312	4, 000	.....	.....	.....	.....	.....
Rye grass (Eng. or Per.)	16, 237	112, 867	25, 523	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rye grass (Italian)	.....	9, 962	4, 110	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rye.....	1, 512	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salsify.....	300	34	.....	12	.....	1	.....	.....	.....	.....	.....	.....
Sorghums.....	39, 434	.....	.....	.....	700	228	1, 100	126	.....	.....	.....	.....
Spinach.....	5, 472	11, 815	.....	19, 966	.....	.....	.....	.....	.....	.....	.....	.....
Speltz.....	10, 159	.....	.....	.....	.....	13	.....	37	.....	.....	.....	.....
Squash.....	3, 095	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sudan grass.....	3, 149	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunflower.....	75, 328	.....	.....	25	.....	.....	.....	.....	.....	.....	.....	.....
Sweet clover.....	202, 102	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swiss chard.....	1, 949	1, 464	.....	3, 671	.....	5	.....	.....	.....	.....	.....	.....
Timothy.....	7, 575, 968	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tomatoes.....	2, 810	19	.....	42	.....	66	.....	.....	.....	.....	.....	.....
Turnip (field).....	12, 678	45, 450	.....	4, 572	.....	.....	.....	247	.....	.....	.....	.....
Turnip (garden).....	11, 620	11, 124	.....	11, 589	.....	63	.....	.....	.....	.....	.....	.....
Vegetable (marrow).....	783	484	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vegetables (other).....	119	372	.....	113	.....	163	.....	691	1, 211	.....	.....	.....
Vetches.....	7, 613	78, 400	.....	.....	57, 000	.....	.....	.....	.....	.....	.....	.....
Watermelon.....	2, 358	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Wheat.....	19, 356	5, 940	120	.....	855	.....	.....	.....	.....	.....	.....	.....
White clover.....	42, 117	56, 256	.....	.....	.....	.....	1, 000	.....	.....	.....	.....	.....

SUBVENTIONS TO ASSIST IN PROMOTING THE PRODUCTION, CONDITIONING AND DISTRIBUTION OF SUPERIOR SEEDS AND FERTILIZERS

It is generally conceded that the best seed for Canadian conditions is that produced in our own country. The Seed Division co-operates with the provinces in conducting seed crop competitions, combined seed crop and seed competitions, seed fairs, and provincial seed exhibitions, and make subvention payments to the provincial Departments of Agriculture. Some changes were made in the plan for the payment of these subventions in 1930, and the maximum amount made available from the Seed Branch appropriation for each of the several purposes is as follows:—

Seed crop competition.....	\$ 50 00
Combined seed crop and seed competition.....	200 00
Local seed fair.....	50 00
District seed fair.....	250 00
Provincial seed exhibition.....	600 00
Seed cleaning machines.....	600 00
Machines to grind limestone or mix fertilizer.....	300 00
Freight charges per ton for agricultural lime.....	0 50

The total amount of subvention must not exceed \$1,200 to each province having less than one million acres under field crops, and \$1,200 pro rata for each additional million acres under cultivation in field crops, provided that the total subvention to which any province is entitled shall not exceed \$1,200 pro rata per 100,000 of total population.

Provincial Departments of Agriculture are paid these subventions up to one-half the amount paid by the provinces. The Minister of Agriculture for the province may utilize the total subvention due each fiscal year for any or all of the purposes above-mentioned, except for seed crop competitions. For the latter a total not exceeding twenty-five per cent of the amount available to a province may be paid.

From 1912 until 1926 subventions were paid by the Federal Department on the basis of two-thirds of the prize money, but with the revision of regulations requiring registered seed stocks for the combined seed crop and seed competitions, the Seed Branch has performed the inspections, the organization and other judging expenses being borne by the provinces. The total expenditures as paid by each province and the Dominion have thus been approximately on a fifty-fifty basis.

The amounts paid by the Seed Branch to the provinces during the fiscal year were as follows:—

	Seed Crop Competitions		Combined Seed Crop and Seed Competitions		Local Seed Fairs		District Seed Fairs		Provincial Seed Exhibitions		Seed Cleaning Machines		Other Projects
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	
		\$		\$		\$		\$		\$		\$	\$
Prince Edward Island.....			3	540 00									
Nova Scotia.....	8	251 00									1	116 18	110 43
New Brunswick.....			9	414 25									
Quebec.....													397 71
Ontario.....	2	75 00	27	3,492 50	14	247 93	1	250 00	2	1,264 12			
Manitoba.....	10	365 59			14	657 12			1	600 00	8	1,743 00	
Saskatchewan.....	2	70 00	1	200 00	12	305 75			1	600 00			
Alberta.....													
British Columbia.....													

While amounts of subventions shown were paid during the fiscal year, such amounts were not the total due the provinces. Several accounts received during the year will be paid out of the vote for the following fiscal year, due to shortage of funds in the Seed Branch vote to meet extraordinary expenses.

In the case of British Columbia an annual subvention of \$2,500 is available towards encouraging the production and marketing of field root and garden seeds. The provincial Department of Agriculture authorizes the expenditure of an equal amount for this purpose.

SEED PRODUCTION

The production of high grade seeds in Canada is steadily increasing in importance. Canadian-grown seeds command recognition on foreign markets by virtue of their inherent qualities of winter hardiness and vigour of growth, and because our standards of quality for graded seeds of all kinds are so highly regarded. Stocks of high class seed of wheat, oats, barley, alsike clover, sweet clover, brome, Canadian blue, and browntop were available for export last year.

CERTIFICATION OF SEED CROPS

In order that the growing demand for seed of superior quality might be met, a further service of inspection of seed crops has been made available. Crop standards, which are now uniformly applied throughout Canada, were accordingly prepared and provide for inspections on the basis of purity of variety, trueness to type, or freedom from specified weeds. A Seed Crop Certificate was also prepared. This certificate is issued from the office of a district inspector and certifies the quality or character of a crop that has been found to comply with the standard of inspection applied. The following table shows the acreage of each kind of crop inspected, the nature of the inspection, the quantities of seed derived therefrom, and the quality or character for which certified:—

Kind of Crop	Acres inspected	Nature of inspection			Quantity of seed certified as to		
		Purity of variety	Trueness to type	Freedom from weed seeds	Purity of variety	Trueness to type	Freedom from weed seeds
		acres	acres	acres	bushels	bushels	bushels
Barley.....	288	267	21	.....	2,219	.....	.....
Oats.....	901	901	.....	.....	30,840	.....	.....
Wheat.....	12,716	12,716	.....	.....	44,980	.....	.....
Vetches.....	56	56	.....	.....	1,103	.....	.....
					pounds	pounds	pounds
Alfalfa.....	71	.....	71	.....	.....	309	.....
Alsike.....	430	.....	.....	430	.....	.....	22,650
Brome grass.....	1,181	.....	.....	1,181	.....	.....	61,341
Brown top.....	1,463	.....	.....	.....	.....	36,193	.....
Corn.....	13	13	.....	.....	.....	.....	.....
Creeping bent.....	56	.....	56	.....	.....	2,676	.....
Creeping red fescue.....	6	.....	6	.....	.....	.....	.....
Flax.....	85	85	.....	.....	41,152	.....	.....
Mangel.....	12	.....	12	.....	.....	.....	.....
Red clover.....	2,487	.....	2,364	123	.....	26,595	6,590
Reed canary grass.....	2	2	.....	.....	.....	.....	.....
Sweet clover.....	164	150	14	.....	20,019	.....	.....
Velvet bent.....	32	.....	32	.....	.....	500	.....
Western rye grass.....	61	.....	.....	61	.....	.....	14,350

Following is a statement of the imports and exports of clover and grass seeds during 1929:—

ALSIKE

Imports, none. Exports, 8,013,280 pounds.

The average yearly exports of alsike seed from Canada during the past five years were 7,880,000 pounds.

ALFALFA

Imports, 232,492 pounds. Exports, 178,520 pounds.

The imports and exports of alfalfa seed since 1925 have varied considerably from year to year due to variable yields of the Canadian seed crop.

Alfalfa seed produced in southern countries is not sufficiently winter hardy for Canadian climatic conditions. Staining regulations have been put into effect requiring all alfalfa seed imported into Canada to be stained 10 per cent red, excepting that grown in the states bordering on Canada and the states of Utah, Wyoming, and South Dakota. Alfalfa seed from these states, if sealed in containers by officers of the state and certified to be of the Grimm, Baltic, or kindred winter-hardy variegated variety, may be imported when coloured 1 per cent navy blue.

RED CLOVER

Imports, 306,532 pounds. Exports, 60,120 pounds.

Canada has imported an average of 1,850,000 pounds of red clover seed annually the last five years. Because of very favourable conditions during the season of red clover seed development, home production in 1929 very much exceeded the average, hence the decrease in imports.

Imported red clover seed is required to be coloured to indicate its origin under the Seed Importation Regulations. Extensive trial plot tests indicate that red clover seed imported from southern countries is not sufficiently winter hardy to withstand Canadian climatic conditions. Efforts are, therefore, being made to increase home production of this important hay and seed crop by inspecting seed crops and sealing the seed derived therefrom in containers, certified as to origin of production, type or strain, and freedom from certain noxious weed seeds. Results of this work for the year were very gratifying, a total of 33,185 pounds of seed having been sealed and certified. This seed was produced principally in the provinces of Ontario, Quebec, Manitoba, and British Columbia.

WHITE CLOVER

Imports, 86,250 pounds. Exports, none.

This seed crop can be produced in Canada, but little progress has been made in increasing its production to meet home requirements.

TIMOTHY

Imports, 7,220,000 pounds. Exports, none.

The average yearly importation of timothy seed into Canada from the United States during the past five years amounted to 7,800,000 pounds.

Timothy seed can be produced in all the provinces of the Dominion, particularly Alberta, and production could be increased to the extent of greatly reducing the quantity required to be imported.

OTHER GRASSES

Imports, 773,181 pounds. Exports, 1,500 pounds (brown top).

Agricultural and lawn grass seeds can be grown in Canada, but low costs of production in other countries tend to discourage the increasing of our acreage of these crops. Kentucky blue grass grows freely in the Winnipeg district of Manitoba and in northern Alberta, Canadian blue grass is produced in Ontario, and bent grasses are becoming an important cash crop in the Maritime Provinces. Fescues are grown successfully in the western provinces, where their production can be greatly increased, and orchard grass can be produced in various areas throughout the Dominion.

FIELD ROOT AND GARDEN VEGETABLE SEEDS

Imports, 3,600,651 pounds. Exports, none.

Statistics would indicate that probably 90 per cent of the field root and garden vegetable seeds used in Canada are imported. Home production of these seeds has been encouraged for twenty years, and during 1918 the quantity of field root and some kinds of garden vegetable seeds produced in British Columbia and in Nova Scotia was substantial. It is generally agreed that the quality of the home-grown seed from selected stock seeds produced by Canadian plant breeders is superior to the seeds that are imported; but because the quantities that have been produced by individual growers are small and the growers themselves are widely distributed, home-grown seed has not found its way into general commerce.

With a view gradually to enlarging upon the supply of registered field root and garden vegetable seeds from inspected seed crops as a means to improve these crops generally in Canada, I have authorized officers of this Branch to examine into plans for a better system of marketing these home-grown field root and garden vegetable seeds, which should tend to encourage their production and more general use.

GRADING, INSPECTION, AND SEALING OF SEED

Seed inspection and grading constitutes a large part of seed control work. During the season when seed stocks are being assembled and conditioned at seed-cleaning plants and on growers' premises, a large staff of inspectors is required in order that prompt service may be provided. An inspector who acts in the capacity of seed grader is located at each district office where all control samples of seed are graded. He also examines and reports on all samples taken in connection with the enforcement of seed importation regulations under the Seeds Act. The volume of this work is such that it requires the whole time of this officer over the greater part of the year.

The volume of work in connection with the grading of seed for commerce on the basis of control samples received at district offices is steadily increasing. For each sample received a Control Sample Certificate is issued in the name of the sender of the sample, and is his authority for offering for sale for seeding purposes under the grade name stated on the certificate the lot of seed represented thereby. In making sales the quality of the seed must be maintained to the standard of the control sample.

The quality of seeds of the source and kind listed in the following table, and represented by control samples, is indicated by the percentages coming within the several grades. A separate division is made of the factors "Purity" and "Germination," and the sources of origin are indicated by the percentages stated under the headings Farmers, Merchants, and Institutions.

Kind of Seed	Source			Purity				Germination			
	Farmers	Merchants	Institutions	No. 1	No. 2	No. 3	Rejected	No. 1	No. 2	No. 3	Rejected
	%	%	%	%	%	%	%	%	%	%	%
Alfalfa.....	27.0	63.0	10.0	26.3	37.7	21.7	14.3	85.6	3.5	4.7	6.2
Alsike.....	16.4	75.5	8.1	20.0	29.0	28.5	22.5	85.1	5.3	7.0	2.6
Barley.....	75.0	11.4	13.6	36.0	20.0	4.8	39.2	82.2	6.0	5.4	6.4
Beans (field).....	77.0	18.0	5.0	95.0	.....	.....	5.0	96.0	.....	.....	4.0
Bent grasses.....	2.8	90.0	7.2	21.4	28.4	17.2	36.0	55.8	19.3	7.4	17.5
Blue grass.....	2.3	92.6	5.1	53.3	24.0	10.9	11.8	84.4	8.3	3.6	3.7
Brome.....	27.2	49.6	23.2	41.3	32.0	12.7	14.0	82.0	10.0	4.0	4.0
Buckwheat.....	40.6	52.8	6.6	27.4	9.0	27.2	36.4	66.3	13.0	6.0	14.7
Clover (mixtures).....	30.5	66.8	2.7	9.2	28.3	30.4	32.1	74.5	4.7	9.9	10.9
Corn (field).....	13.0	73.6	13.4	87.8	5.3	3.0	3.9	93.1	1.7	1.7	3.5
Flax.....	57.4	21.0	21.6	36.4	15.0	15.0	33.6	86.7	3.4	2.0	8.0
Grass (mixtures).....	6.3	92.7	1.0	45.8	52.0	1.2	1.0	73.7	14.7	8.1	3.5
Italian rye grass.....	10.0	90.0	.....	30.0	60.0	10.0	.....	66.6	16.6	8.6	8.6
Meadow fescue.....	20.0	64.0	16.0	55.0	25.0	20.0	.....	78.2	17.0	.....	4.8
Millet.....	26.0	70.2	3.8	33.8	29.7	19.8	16.7	86.4	1.6	6.8	5.2
Oats.....	73.4	13.0	13.6	26.0	10.0	14.0	50.0	64.5	5.0	6.5	24.2
Orchard grass.....	10.0	85.7	14.3	26.3	26.3	21.1	26.3	78.5	15.7	.....	5.8
Other grasses.....	.....	77.3	12.7	42.8	28.5	17.1	11.6	61.7	6.0	14.7	17.6
Other fescues.....	5.0	88.7	6.3	86.8	4.0	8.0	4.3	100.0	10.0	.....	.....
Perennial rye grass.....	3.8	82.0	14.2	70.0	21.4	4.3	.....	84.6	7.1	5.2	3.1
Red clover.....	42.7	47.0	10.3	23.6	39.3	16.8	20.3	96.0	1.0	1.0	2.0
Red top.....	2.9	89.0	8.1	71.2	16.6	8.3	3.9	80.0	5.5	3.5	11.0
Rye.....	50.0	30.0	20.0	31.5	9.6	13.7	45.2	73.3	8.3	6.8	11.6
Sunflower.....	6.4	87.3	6.3	57.0	16.2	21.6	5.2	72.0	10.3	8.0	9.7
Sweet clover.....	41.0	48.7	10.3	21.8	30.0	17.3	19.6	87.2	6.0	3.8	3.0
Timothy.....	44.7	45.1	10.2	25.0	43.3	28.6	14.4	94.5	1.0	.....	4.5
Vetches.....	45.2	50.0	4.8	52.5	4.5	20.0	23.0	77.0	5.0	9.0	9.0
Western rye grass.....	36.8	39.4	23.8	55.0	14.0	16.6	14.0	85.7	6.2	3.8	4.3
Wheat.....	61.5	32.4	6.1	25.5	10.9	29.8	33.8	69.6	5.4	7.0	18.1
White clover.....	5.8	78.0	16.2	31.4	25.1	30.0	13.5	.....	.....	.....	.....

Kind of Seed	Source			Germination			
	Farmers	Mer- chants	Insti- tutions	No. 1	No. 2	No. 3	Below minimum
	%	%	%	%	%	%	%
Beans (garden).....	10.3	74.6	15.1	92.5	1.8	2.0	3.7
Beet (garden).....		77.4	22.6	80.2	5.2	6.4	7.2
Cabbage.....	2.0	77.5	20.5	69.0	10.0	10.0	11.0
Carrot.....	1.2	53.8	40.0	40.3	13.2	33.3	13.2
Cauliflower.....		100.0		72.2	16.6	5.1	6.1
Celery.....		67.7	22.3	54.6	13.4	16.0	16.0
Corn (garden).....	20.0	57.6	22.4	80.5	9.8	4.4	5.3
Cucumber.....	40.0	39.0	21.0	90.0	4.8	1.2	4.0
Lettuce.....		80.9	19.1	91.4	1.6	1.0	6.0
Mangel.....	14.4	67.8	17.8	67.0	9.3	9.3	14.4
Melon.....		93.0	7.0	80.3	7.1	6.3	6.3
Onion.....	13.0	70.0	17.0	71.0	9.0	8.0	12.0
Parsley.....	28.5	57.0	14.5	44.6	17.5	14.7	23.2
Parsnip.....	7.5	75.0	17.5	43.6	12.9	25.4	18.1
Peas (garden).....	7.5	85.6	6.9	83.8	4.3	2.7	9.0
Pumpkin.....		88.2	11.8	85.2	7.4	6.4	1.0
Radish.....		79.0	21.0	66.3	10.6	16.4	6.7
Rape.....	13.4	81.8	4.8	80.0	10.0		10.0
Spinach.....		98.0	2.0	78.4	10.0	4.6	7.0
Squash.....		83.5	16.5	67.1	9.0	8.9	15.0
Tomato.....	2.8	80.0	17.2	70.0	10.0	11.8	8.2
Turnip.....	2.0	75.4	22.6	76.6	1.0	12.1	10.3

Vegetable seeds with germination below a certain minimum must be labelled to show the actual germination.

The service of inspection, grading and sealing of seed in containers occupies the full time of a number of inspectors during late autumn and winter. Central cleaning plants are steadily increasing, and at a number of these an inspector must be available at all times during the season when seed is being received and cleaned. The value of inspection and grading of this character is being more fully realized by discriminating seed purchasers, with the result that sellers of high class seeds are availing themselves of this service to a greater extent year by year. There were inspected at central cleaning plants and on growers' premises the following kinds and quantities of seed:—

Kind of Seed	Reg. No. 1	Reg. No. 2	Reg. No. 3	No. 1	No. 2	No. 3
	bush.	bush.	bush.	bush.	bush.	bush.
Barley.....	9,311	5,070	3,094	6,598	1,139	
Flax.....	1,491	471		735		
Oats.....	44,016	38,998	16,814	140,171	22,009	6,305
Peas.....		45				
Rye.....		74		74		
Vetches.....				1,103		
Wheat.....	36,658	28,441	10,436	39,594	1,730	159
	lb.	lb.	lb.	lb.	lb.	lb.
Alfalfa.....	82,689	91,595	18,435	234		
Alsike.....				22,650		
Brome grass.....	13,200			54,901	6,440	
Browntop.....				13,500		22,480
Creeping bent.....				1,875	428	373
Onion.....	445					
Red clover.....				29,552	2,884	749
Timothy.....				1,000	4,000	
Turnip.....	1,092		82	38,016	2,027	
Sweet clover.....	2,248	6,557				
Velvet bent.....						500
Western rye grass.....				14,350		

INVESTIGATIONAL WORK

In collaboration with officials of the Cereal Division of the Experimental Farms Branch, two lines of investigational work are being carried on. Material was again collected and prepared for use in obtaining data on the relative values of seed representing a wide range of physical quality, and on the comparative values of germination results obtained in actual field testing as opposed to results from laboratory tests. This information is desirable as a guide in balancing quality factors in seed grading practice and in fixing minimum general quality standards with respect to seed grades.

ASSISTANCE TO CANADIAN SEED GROWERS' ASSOCIATION

The Canadian Seed Growers' Association is a national organization of farmers who specialize in the production of registered seeds. They multiply for commerce the foundation stock seeds called "Elite Stock Seed" produced by Dominion and provincial experiment stations and sometimes by private growers. The association office functions as a registration bureau for seed crops, directs the work of the growers, and publishes a seed catalogue. Registered seed provides much of the seed stocks for field crop competitions, local seed fairs, and provincial seed exhibitions. Complete information as to the work of the association may be obtained from their annual report. Financial support from the Seed Branch was continued during the past year to the extent of \$13,000.

A motion picture, illustrative of registered seed from the production of elite stock seed to the inspection of the crops and final grading of the seed, was made in co-operation with the Motion Picture Bureau of the Department of Trade and Commerce and the Cereal Division of the Experimental Farms Branch.

EXHIBITS

A Seed Branch exhibit was made at the Provincial Seed Exhibition and Dairymen's Convention, Moncton, N.B., and at Truro, N.S., and the Quinte District Seed Fair at Napanee, Ont.

THE FEED DIVISION

Under the provisions of the Feeding Stuff Act 248 manufacturers registered 979 brands of commercial feeding stuffs during the registration year ending September 30, 1929. These registered feeds may be classified according to their nature or trade designations as follows:—

Animal products.....	107	Oat scalplings.....	11
Barley products.....	7	Peanut products.....	1
Beet pulp (dried).....	6	Pig feeds.....	31
Brewers' and distillers' products...	30	Pigeon feeds.....	11
Buckwheat products.....	1	Poultry mash feeds.....	347
Calf meals.....	39	Poultry scratch feeds.....	92
Cocoonut products.....	2	Rabbit feeds.....	6
Corn products.....	10	Rice products.....	7
Cottonseed meals.....	27	Screenings.....	24
Cattle feeds.....	78	Sheep and goat feeds.....	3
Fish products.....	18	Soya bean products.....	6
Horse feeds.....	6	Miscellaneous mixed feeds.....	62
Linseed meal and cakes.....	19	Miscellaneous unmixed feeds.....	11
Oat products.....	17		

The number of commercial feed manufacturing concerns and of brands of feed registered shows a steady increase from year to year. Practically all the larger flour milling concerns are now producing and marketing a more or

less complete line of mixed stock and poultry feeds. In increasing numbers operators of small flour and grist mills are entering the business. They usually start by putting out one or two brands of poultry feed for local distribution, but many of them later branch out with prepared feeds for cattle, hogs, and other classes of stock. Some also carry a stock of materials on hand and put up rations on prescription usually in accordance with the formulae recommended by some recognized authority or institution.

The following table shows, according to provinces, the number of feed manufacturing concerns and brands of feed registered during the registration years 1927-28 and 1928-29:—

Province	1927-28		1928-29	
	Mfgs.	Brands	Mfgs.	Brands
Alberta.....	26	53	24	55
British Columbia.....	44	174	41	190
Manitoba.....	8	26	10	27
New Brunswick.....	2	4	3	4
Nova Scotia.....	2	4	3	5
Ontario.....	95	453	111	524
Prince Edward Island.....	1	1	1	1
Quebec.....	19	78	23	102
Saskatchewan.....	6	11	8	17
Other countries.....	23	44	24	54
Total.....	226	848	248	979

In order to check commercial feeding stuffs and wheat mill feeds for compliance with the guarantees and standards of quality and purity required by the Act, 5,846 inspection visits were made during the year and 1,334 samples were collected from manufacturing plants and wholesale and retail dealers, and submitted for analysis.

Manufacturers are required to guarantee and register the composition and ingredients of their mixed feeds. The substitution of other ingredients for those registered is responsible for a large proportion of violations found. Sometimes the materials substituted do not adversely affect the feed; in other cases they do. Sometimes the substitution is made because a certain ingredient is temporarily unobtainable; more frequently it is a case of market price. Failure to meet guaranteed analyses would appear in most cases to be due to manufacturers not allowing in their guarantees sufficient margins to take care of the normal variations in feed materials. Cases of injurious weed seeds in feeds are now comparatively rare, although vital weed seeds in chop feeds are quite common. This is not surprising, when the quantities of weed seeds in the feed grades of grain are considered, and when it is recognized that much of this grain is ground locally in steel-plate choppers which do not pulverize many of the finer weed seeds.

The usual close attention has been given, and with gratifying results, to securing the compliance of millers with the quality and purity standards for bran, shorts, middlings and feed flour. These products are now well standardized and few complaints regarding their quality are received, which is in decided contrast to the situation which existed prior to amending the Act in 1923 and 1924. Mill screenings, as might be expected, vary widely in quality and composition. Some mills which are equipped with cleaning machinery thoroughly to separate the wheat from the foreign matter present, find difficulty in meeting the maximum fibre standard of 8 per cent for their mill screenings.

During the year investigations were completed with respect to feed offal obtained in the milling of rolled oats and oatmeal, and with the approval of the Advisory Board appointed under the Feeding Stuffs Act, the former definition for Oat Middlings was repealed and substituted by the following definitions, fixing standards for oat shorts and oat middlings:—

Oat shorts shall be the by-product containing not more than 7 per cent of fibre, obtained in the milling of rolled oats or oatmeal from clean oats.

Oat middlings shall be the by-product containing not more than 4 per cent of fibre, obtained in the milling of rolled oats or oatmeal from clean oats.

The aggressive selling campaigns conducted by some of the larger feed manufacturers during recent years have undoubtedly stimulated interest in prepared feeds, and stock and poultry feeders are using them much more widely than formerly. Manufacturers more and more are keeping in touch with, and basing their feed formulae on, scientific findings in animal and poultry nutrition, and while they are always ready to cater to the type of purchaser who is governed largely by price, the tendency is towards the production of properly balanced feeds for the various classes of stock and poultry.

A recent development is the greatly increased use of molasses in feeds. In earlier years molasses was used largely to disguise or make palatable otherwise unpopular materials; but with cheaper supplies and the development of processes for applying cold, molasses is now being used in all kinds of ready-mixed feeds.

Apart from corn and cottonseed meal, Canada's imports of feed materials are of small proportions. During the fiscal year 12,848,070 bushels of corn were imported for purposes other than distillation and used chiefly for feed. These large importations are rather significant when it is considered that for many purposes barley is a recognized substitute for corn, and that large quantities of domestic barley have been available at prices much below those prevailing for corn or other feed grains. Undoubtedly through this substitution feeders with the requisite knowledge of blending materials to correct the deficiencies in barley as compared with corn could have effected a considerable saving in their feed bills.

MEDICATED STOCK SALT

Complaints are still being received against the activities of manufacturers and promoters of medicated stock salt, to which reference has been made in previous reports. It has been brought to our attention that several more dealers have made substantial purchases of this material during the past year, and letters have been received from the Retail Merchants' Association protesting against the unscrupulous practice of imposing this article upon merchants and others at absurdly high prices.

Unscrupulous methods are employed for effecting sales and making collections, while accounts, difficult of collection because the unfortunate purchaser has in the meanwhile become enlightened, are given over to a third and apparently disinterested party. In several cases the courts have established collusion between this third party and the manufacturer.

ELEVATOR SCREENINGS

The following table shows the quantities and distribution of the various classes of screenings cleaned from the western grain crop at terminal elevators at Fort William and Port Arthur during the crop year ending July, 1929, and for the eight months ending March, 1930:—

	Standard Recleaned Screenings		Oats Scalpings		Elevator Screenings		Refuse Screenings	
	Crop year 1928-29	8 months ending Mar., 1930	Crop year 1928-29	8 months ending Mar., 1930	Crop year 1928-29	8 months ending Mar., 1930	Crop year 1928-29	8 months ending Mar., 1930
	tons	tons	tons	tons	tons	tons	tons	tons
Thunder Bay District.....	32	28	8	85	30	.....	25	.....
Eastern Canada...	43,149	16,669	75,313	13,494	30	.....	60	.....
Western Canada...	450	280	.....	.....	65	40	.....	.....
Exported.....	35	.....	60,433	7,325	279	198	119,766	33,933
Total.....	43,666	16,977	135,754	20,904	404	238	119,851	33,933

During the crop year 1928-29 there were also distributed from interior and Pacific coast terminals over 42,000 tons of screenings, while over 12,000 tons were milled at Fort William. This makes a grand total of over 355,000 tons, constituting a record, all classes excepting elevator screenings being practically double the shipments of the previous crop year.

Comparing these shipments with those from the 1923 crop, the previous record, it is interesting to note that oats scalpings mounted from 54,000 tons in 1923-24 to 135,000 tons in 1928-29, indicating a growing pollution of western lands with wild oats. Elevator screenings have been reduced to relatively small proportions, indicating the trend toward separating screenings into the cleaned and refuse classes before distribution from the terminals.

Differing from past years, storage and transfer houses in the east took care of a great deal of the domestic demand which was supplied from lake head terminals by boat rather than by rail. The number of local points in the east supplied by rail direct from terminals was considerably reduced, and shipments of screenings during the past winter and spring have been extremely light, in keeping with the light movement of grain.

Elevator and refuse screenings find little market in Canada, and the same is true of oats scalpings, although at the low prices which prevailed during the past winter it would seem that they could have been employed to advantage. One mill installed a machine for hulling the wild oats, thus recovering the groat which should make a valuable feed. Standard recleaned screenings are quite popular with Canadian feeders, and are used most extensively by Ontario farmers within short rail haul of the elevators of Goderich, Midland and Owen Sound. Inquiries made of users, millers and dealers in these areas would seem to indicate that the danger of weed pollution through the distribution of Standard recleaned screenings has been over-estimated, although it was ascertained that purchasers invariably have these screenings ground before delivery at their farms.

HAY AND STRAW INSPECTION

The following table shows the quantities and grades of hay and straw inspected during the fiscal year in accordance with the provisions of the Inspection and Sale Act:—

Kind	No. 1	No. 2	No. 3	No. 4	Shipping grade	No grade	Rejected
	tons	tons	tons	tons	tons	tons	tons
Timothy.....	387.4	4,051.97	556.8			271.5	468
Clover.....	29	5				3	9
Dyke.....	13	80					
Alfalfa.....	111.5	0.55	18.05			2.4	2.5
Prairie.....		20.5	29	10.5		9	
Mixed.....	46.18	107.28	132.71		9	51	76.14
Oat straw.....		18				10.5	18
Wheat straw.....		7.5				15	15
Straw.....		1					

Fees totalling \$1,226.28 were collected for this service, of which amount \$1,013.28 was remitted to the Receiver-General and the balance retained by those authorized inspectors whose only remuneration is the fee collected.

The 1929 hay crop was slightly above the five-year average, and for the most part was cured in excellent condition. Apart from unusually heavy shipments to the United Kingdom, export markets were dull. Domestic markets were moderately active and large quantities of hay were shipped from other districts to the dried-out areas in the Prairie Provinces.

MARKETS AND FERTILIZER DIVISION

MARKETS

The increase in public interest in respect of markets information and marketing problems has resulted in rapid expansion of these services in this Division.

Special marketing problems are investigated and solutions suggested. Information in regard to practically all phases of the marketing of the commodities controlled by the various Acts administered by the Seed Branch is gathered and made available to the public through periodic reports and correspondence.

MARKETS FOR THE YEAR ENDING MARCH 31, 1930

The seed market was not as satisfactory to growers as in some previous years. Prices were generally lower than in 1928, and even at the lower prices the export demand fell off. The demand for alsike particularly declined, so that a substantial carryover to next year is expected. On the other hand, timothy, blue grass, western rye, brome grass and red clover were absorbed in the domestic market, but at relatively low prices. Sweet clover, which was a drug in the market for a number of years, came into prominence again, due to reduced production and a much larger than usual demand in the Prairie Provinces where the severe drought reduced this crop in 1929.

Perhaps the largest red clover seed crop in the past twenty years was harvested in 1929, and Canadian farmers, sensing their opportunity to seed generously of this high quality domestic stock, have easily absorbed the entire crop. As the domestic red clover seed sells at a premium over the imported seed, being more satisfactory under Canadian climatic conditions, it is hoped that its production will continue on a large scale.

The principal export markets of Chicago and London were less dependable than usual during the export season of early winter, reflecting in a large measure

the unsettled grain market. Only the highest qualities were in demand in these principal markets, which made it very difficult to sell the lower grades. The qualities and standards in these markets are reaching a higher level each year, and Canadian seed growers and exporters would be well advised to keep this in mind.

The pressed hay market was very good during most of the year, due largely to a heavy export demand at good prices from the British Isles, where there was a hay shortage. Thousands of tons were shipped to British markets from the Maritimes, Quebec and Ontario. The principal demand overseas was for clover and clover mixtures, although timothy was purchased when clover hay could not be procured. The demand for hay in the eastern states was much smaller than in previous years, and also was mainly for clover and clover mixtures.

Millfeeds, commercial feeding stuffs, and other feeds were in good domestic demand during the past winter, at about the same prices as in 1928. The domestic demand for millfeeds almost equalled the supply, as there was a marked reduction in flour manufactures. Many of the mills operated only part time during the year, and some suspended their operations owing to lack of export demand for flour.

Coarse grains were much cheaper than in the previous year, reflecting the lower prices in the grain exchanges. Barley particularly was cheap, selling per bushel at a lower level than oats, a remarkable condition due to lack of export demand and the substantial increase in the production of barley in Canada during recent years. It is suggested that a larger part of Canadian grown barley might be utilized in Canada in place of imported corn. Mixed feeds for poultry, hogs and dairy cattle were in strong demand, indicating that the farmer is accepting the idea of balanced rations in live stock feeding.

The commercial fertilizer market was normally active, prices being slightly lower than in previous years. There was an important reduction in the price of sulphate of ammonia. This fertilizer is a by-product of Canadian coke ovens and producers are now making determined attempts to sell it in Canada instead of exporting to competitive countries at low prices. In this they may expect to receive substantial assistance from official and other sources.

AVERAGE WHOLESALE PRICES IN CANADA

		1928	1929	1930
		\$	\$	\$
Domestic No. 1 red clover seed.....	per lb.	0 34	0 35	0 22
Domestic No. 1 alsike seed.....	"	0 33	0 28	0 18
Domestic No. 1 alfalfa seed.....	"	0 24	0 36	0 45
Domestic No. 1 timothy seed.....	"	0 08	0 10	0 18
Bran.....	per ton	32 00	34 00	34 50
Shorts.....	"	34 00	36 00	36 50
Oats, No. 1 Feed.....	per bushel	0 59	0 59	0 69
Barley, No. 3 C. W.....	"	0 90	0 85	0 77
Wheat, Feed.....	"	1 21	1 06	0 90
Pressed hay, Mixed No. 1.....	per ton	12 00	10 50	11 00
Sulphate of ammonia.....	"	60 00	58 00	46 00
Superphosphate.....	"	21 00	24 00	19 00
Muriate of potash.....	"	48 50	48 00	60 00

MARKET REPORTING

The following phases of this service are provided:—

(a) The preparation in English and French of commodity reports designed to cover seasonal requirements, and issued as follows:—

(i) On clover and grass seed and seed grain, weekly from November to April inclusive;

- (ii) On fertilizers and agricultural limes, every two weeks during September, October, February, March and April;
- (iii) On supplies of feeding stuffs, hay and straw, every two weeks the year round;
- (iv) On imports and exports, of both seed and other commodities coming under the purview of the Seed Branch, twice a month the year round;
- (b) The preparation of monthly statements regarding markets, for publication in the Bulletin of Agricultural Statistics and the Canada Year Book issued by the Dominion Bureau of Statistics;
- (c) The preparation of weekly statements for publication by the press;
- (d) The preparation of special statements for provincial Departments of Agriculture and other official agencies;
- (e) Correspondence in which information is given to farmers and the trade regarding prices and market prospects.

Information in respect of imports and exports is provided by the Statistics Branch of the Department of National Revenue. Information in respect of foreign countries is obtained by cable from the following: Great Britain, France, Germany, Belgium, Holland, Denmark, Czechoslovakia, Italy, Argentine, Chile, and New Zealand. Canadian Government Trade Commissioners co-operate with us in procuring foreign information. Communication is maintained almost daily with the Bureau of Agricultural Economics, Washington, D.C., regarding markets in the United States.

Domestic information is obtained from representatives of wholesalers, jobbers, retailers and farmers who have a definite interest in the trade of the commodities reported.

The information published is based on the grades or qualities defined in the Acts which control the sale of these various commodities and which are administered by the Seed Branch.

During the past year an inspector in each of the seven Seed Branch districts was designated as Market Reporter. This official keeps in constant touch with the trade in his district and gathers and forwards the information to Ottawa for editing and publishing.

During 1929 about 7,000 English and 5,000 French copies of each edition of these reports were distributed regularly to farmers, the trade and officials. Information was widely quoted by the general press which is interesting to their readers.

The effect of this service is seen in greater public demand for the higher grades and qualities of the commodities reported and in the levelling of prices according to freights and other distribution charges throughout the country. The reports also serve as a guide to producers when placing their products on the market. The quotations permit the farmer to figure comparative costs of these commodities for current use.

MARKETS EXTENSION

Our principal activity in this direction was to encourage a greater utilization of Canadian made sulphate of ammonia. This valuable product has attained to the position in Canada of being the most widely used nitrogen fertilizer in the mixed fertilizer trade and for home mixing. Unfortunately the sulphate of ammonia produced in the Canadian coke industry was not reaching the Canadian farmer. Most of the 30,000 tons annually produced in Canada was being exported at relatively low prices, whereas large quantities were being imported from the United States and other countries at high prices.

An attempt was made to replace, in so far as was considered economical, the foreign sulphate of ammonia with the Canadian made article. The whole matter was placed before Canadian producers and fertilizer distributors, and

excellent co-operation was had in obtaining the end in view. The producers of sulphate of ammonia are co-operating wholeheartedly in developing a larger Canadian market by reducing domestic prices to almost export prices basis. This action should save the Canadian farmer from \$10 to \$20 per ton and provide a dependable domestic market for this fertilizer, which, if used judiciously, should increase the production of farm crops per acre and reduce their cost of production.

FERTILIZERS

The use of chemical fertilizers in Canada was practically unknown thirty years ago. The rapid growth of agriculture with new methods of farming has brought about the extensive employment of chemicals, so that they are now used generally for the control of insects, fungi, bacteria and weeds, and as fertilizer for feeding crops. The consumption of chemical fertilizers in Canada is estimated at more than 200,000 tons per annum, for which Canadian farmers are paying about \$6,000,000.

Practically all the superphosphate and potash used in Canada is imported from the United States and Europe. Most of the nitrate of soda is of Chilean origin, although the importations of synthetic nitrate of soda of United States production increases each year. In the past two or three years we have had an invasion of synthetic fertilizer products, mainly of German and United States origin. Canadian production of fertilizers includes cyanamid, sulphate of ammonia, bone meal, animal tankage, and fish meal.

Almost one-half of the total quantity of fertilizer sold in Canada is of mixtures of the aforementioned materials, the remainder being materials for single application. These mixtures are prepared at mixing plants maintained and operated by the trade throughout the country. As the selling value of these fertilizers is based on their guaranteed content of nitrogen, phosphoric acid or potash, it was found necessary to require vendors to meet a guaranteed analysis. This requirement is implemented by the Fertilizers Act as amended in 1928.

THE FERTILIZERS ACT

This Division is concerned with the administration of the Fertilizers Act and regulations thereunder, and the effects of this legislation on the trade are under constant scrutiny. A study of the legislation of foreign countries is necessary in order that our regulations may be kept abreast of modern fertilizer control and the public receive protection against poor quality fertilizer of foreign origin. A great deal of time is devoted also to the study of fertilizer production and supply at home and abroad with a view to guiding the trend of trade in the interest of the public.

Special importation regulations are provided and in each of the seven Seed Branch inspection districts inspectors are notified by customs officials of all imported shipments. Those imported in contravention to the regulations are not permitted to be distributed or sold in Canada unless and until all the governing regulations have been complied with. The prescribed method of inspection requires that in each district there shall be taken at least three official samples of every brand there sold. These samples are forwarded by the inspector to the official analysts for chemical and microscopic determination. The results of such analyses are published yearly and made available to the interested public. Under authority of the Act inspectors may seize any fertilizer which does not conform with its provisions, and withhold it from sale until the irregularities are corrected. Vendors whose fertilizer is incorrectly labelled or deficient in analysis are promptly notified to adhere strictly to the requirements of the law, while any flagrant irregularity or wilful violation is punished with prosecution.

As the taking of samples requires great care in order that they may thoroughly represent the shipment, special methods are prescribed by regulation under the Act. Because of this, individuals who have reason to doubt the guaranteed analysis of a fertilizer purchased should not undertake the taking of a sample, but should request the nearest fertilizer inspector to investigate and take an official sample. This service is provided free of charge.

ADMINISTRATION

The administration of the Act during the year was not attended with any special features. The trade has adjusted itself reasonably well to the restrictions imposed.

The number of registrations under the Fertilizers Act for the year ending June 30, 1929, was 369, as against 342 in the previous year. These registrations were assigned to 54 firms, as follows:—

	Firms	Registrations
Prince Edward Island	1	3
Nova Scotia	4	30
New Brunswick.....	3	5
Quebec.....	5	23
Ontario.....	14	161
Manitoba.....	1	1
Saskatchewan.....	0	0
Alberta.....	0	0
British Columbia.....	8	47
Great Britain.....	4	4
United States.....	14	95
Totals.....	54	369

The 369 brands registered may be classified as follows:—

1. Mixed fertilizers, complete.....	260
2. Mixed fertilizers containing only two of the three plant foods:—	
(a) Nitrogen and phosphoric acid.....	44
(b) Phosphoric acid and potash.....	44
3. Fertilizers containing only one of the three plant foods but not exempt from registration under the Fertilizers Act.....	21

In addition to registered fertilizers there were on the market basic slag and fertilizer chemicals such as nitrate of soda, sulphate of ammonia, superphosphate, and muriate of potash, all of which are exempt from registration.

Of the 871 samples taken by inspectors and analyzed 91 were found deficient and 780 met the guaranteed analysis directly or by compensation. Incorrect labelling, questionable advertising, and the abuse of the privilege of selling on prescription were the principal offences, other than failure to meet the guaranteed analysis.

During the year there was a large increase in the quantity of fertilizer imported from European countries. Some 51,000 tons were received from France, Great Britain, and Holland, consisting of superphosphate, mixed fertilizer, synthetic products, and basic slag. The United States, of course, continued to supply the largest part of our fertilizer requirements. The coming into the market of these European fertilizers, many of which are quite new to the Canadian trade, is demanding careful study so that they may be properly classified and defined under the Act for control purposes.

There were numerous instances this year of the trade clashing with the provisions of the Act owing to not having sufficient knowledge of these European fertilizers to define them for registration purposes in such a way as to prevent confusing them with other fertilizers of recognized standard nomenclature.

Investigation thus far would indicate that often European tankage is fortified with sulphate of ammonia and ground natural rock phosphate. In one instance, however, the adulterant was found to be ground and acidulated leather scrap containing about 7 per cent nitrogen and no phosphoric acid.

There is also a tendency yet on the part of the European trade to quote in Canada on an ammonia basis instead of nitrogen. This factor has caused serious misunderstanding after the goods have arrived in this country.

Canadian importers would do well to place their orders in Europe on a well defined basis in respect of analysis and ingredients, at least until the European trade becomes thoroughly familiar with the requirements of the Fertilizers Act.

THE MARITIME DISTRICT

This district includes the three Maritime Provinces, with headquarters at Sackville, N.B., where the district inspection office and seed laboratory are located. A permanent inspector for each province is assisted by seasonal inspectors who are employed as required during the busy seasons in the seed, feed, fertilizer, hay, binder twine, and spray material trades.

SEED PRODUCTION AND SUPPLY

The spring was cold and wet with seeding delayed considerably, particularly in some localities. The summer was exceptionally dry, and crops in parts of Nova Scotia and New Brunswick suffered accordingly. Prince Edward Island and other parts of Nova Scotia and New Brunswick had excellent crops of both seed and hay. In Prince Edward Island 107,661 bushels of oats, of which all but 3,210 bushels were No. 1, were graded by the inspectors and sealed in sacks over seed inspection certificates to meet the shortage in Nova Scotia, New Brunswick and Quebec. The sealing in sacks was a new departure, and this official guarantee of quality stimulated demand for Island oats in preference to re-cleaned western, No. 2 C.W. and Feed grades, large quantities of which had formerly been sown with disastrous results from the standpoint of weed introduction and frequently poor germination.

Maritime farmers are being encouraged to harvest their own requirements of timothy seed instead of importing from the United States. During the year 1,000 pounds of No. 1 and 4,000 pounds of No. 2 timothy seed were cleaned and graded.

The growing of bent grass seed is now well established. The industry has been centered in Prince Edward Island, where the growers pool their seed according to grade. P.E.I. Bent is the trade name for a variety which is identical with the Rhode Island Bent and the Colonial Bent of New Zealand. The Canadian demand for this seed is restricted to grade No. 1, of which 13,500 pounds were harvested in 1929, and 22,693 pounds, most of which graded No. 2, were bulked for export to the United States. A start has been made also in the growing of Velvet Bent and Creeping Bent for seed. The bent seed crops are inspected in the field and the seed is sealed in sacks over seed inspection certificates and disposed of at profitable prices.

Registered seed crops were limited to Banner and Victory oats, Charlottetown 80 barley, and Ditmar's Bronze Top swede turnip. The quantities sealed as registered included 987 bushels of oats, 145 bushels of barley, and 1,092 pounds of swede turnip seed. About 3,000 pounds of swede turnip seed were grown in 1929, and many times that quantity could have been sold at high

prices. The climatic conditions are particularly suitable for turnip seed growing, and Canadian requirements could be produced in these provinces. Ditmars' Bronze Top was sold under registered brand in sealed cartons, and several inquiries were received from Quebec, where it is recommended by the Provincial Seed Board. Bangholm turnip seed, which is resistant to the club root disease, retailed up to \$1.25 per pound.

The combined field crop and cleaned seed competitions were continued in cereal grains and swede turnip seed. The grading of the samples is shown by provinces in the following table:—

	No. 1	No. 2	No. 3	Rejected
Prince Edward Island.....	49	11	13	7
Nova Scotia.....	35	6	5	5
New Brunswick.....	32	7	14	38

The large number of rejected samples, particularly in New Brunswick, indicated unsuitable machines or negligence in cleaning; but with the establishment of further seed centres there the usual improvement is anticipated. The germination was generally excellent.

Four seed-cleaning centres were organized in Nova Scotia and one in New Brunswick by the Provincial Seed Boards, making ten co-operative seed-cleaning centres in the Maritime Provinces, and from the 1929 crop 12,030 bushels of cereal grains, 5,000 pounds of timothy, and 39,369 pounds of bent grass seed were cleaned and graded.

The laboratory established at Sackville in 1929 has stimulated interest in the quality of seed. During the season 1,675 samples were tested and graded from the following sources:—

950 from farmers and dealers;

653 from seed importations through customs;

32 taken officially as suspected violations of the Seeds Act; and

40 for special investigation.

The seed imports include 291,690 pounds, being mostly grass and clover seed, peas and rape, field root and garden vegetable seeds. Only 163 pounds had to be deported for noxious weed seeds or low germination.

SEED EXHIBITIONS

Provincial seed exhibitions were held at Charlottetown, Truro, and Moncton. The exhibitions at Charlottetown and Truro being restricted to official samples were of excellent quality. The Seed Branch had an exhibit at Truro and Moncton featuring Maritime seed and hay classified by grade, commercial feeding stuffs and fertilizers, and domestic and imported red clover seed stained to show the country or region of origin.

INSPECTION

The inspectors visited 982 points and made 907 visits for crop and seed inspection, 179 for feeding stuffs, 140 for fertilizers, 27 for binder twine, 396 for hay, 56 for economic poisons, and 193 for markets information. The seed

crop inspections totalled 2,868 acres, and the following kinds and quantities from the 1929 crop were sealed in sacks for market:—

Kind of Seed	Reg. No. 1	Reg. No. 2	Reg. No. 3	No. 1	No. 2	Export
	bushels	bushels	bushels	bushels	bushels	bushels
Oats.....	501	307	179	104,451	3,210	.....
Wheat.....				16		.....
Barley.....		91	54	110		.....
	pounds	pounds	pounds	pounds	pounds	pounds
Timothy.....				1,000	4,000	.....
P.E.I. Bent.....				13,500		22,693
Velvet Bent.....						300
Creeping Bent.....						2,676
Swede Turnip.....	1,092					.....

Seed dealers were also visited and 290 official samples were taken, but as nearly all the small seeds sold in these provinces are imported or bought from wholesale seed houses, very few violations were reported, and only two of these were considered for prosecution.

Thirty-four official samples of feeding stuffs were taken. The sale of a commercial feeding stuff claimed to have been found poisonous to cattle was discontinued. A "Mixed Wheat Feed" which did not comply with the definition for pure mill feeds was forbidden further sale. Argentine shorts containing screenings and excess vital weed seeds were forbidden further importation and sale. Proto Concentrate, Royal Buttermilk Laying Mash, Fish Meals, etc., were made to comply with the requirements. Most of these commercial feeding stuffs are imported or originate in other inspection districts.

Practically all fertilizer materials and mixed brands brought into this district were sampled by the inspectors, mostly at the ports of entry. Importations included 21,159 tons into Prince Edward Island, 35,259 tons into Nova Scotia, and 38,141 tons into New Brunswick, 3,695 tons of the latter being for reshipment to the state of Maine. The fertilizer business was very heavy through the port of St. John and up to 40 cars a day were distributed to country points. The early spring caused rush shipments, but inspections were completed before the shipments were made. Three seizures were made and shipments were held for correct labelling. A few infractions in regard to registration and other provisions of the Act were dealt with. A total of 115 samples were analyzed by the official analyst.

Hay was inspected and graded as follows:—

—	No. 1	No. 2	No. 3	No grade	Rejected	Total
	tons	tons	tons	tons	tons	tons
Timothy.....	280	2,101	251	.....	.....	2,632
Dyke.....	13	39	.....	.....	.....	52
Clover mixed.....	39	17	.....	.....	.....	56
Mixed hay.....	.....	15	.....	27	2	44
						2,784

This was shipped from Westmorland and Carleton counties, New Brunswick, and Cumberland and Colchester, Nova Scotia. Most of it was sold locally, but several shipments were made to Great Britain. The system was adopted of inspecting on the dock rather than at country loading points, thus lessening the cost of inspection. Practically all the surplus hay was marketed. The quality was much better than in previous years, due to earlier cutting and excellent weather for curing. A short course in hay grading for inspectors was held at Sackville early in the season to secure uniformity in their work.

The inspection of binder twine included seven official samples, and tests for length per pound showed the different brands well within the 5 per cent tolerance allowed.

Careful attention was given to insecticides and fungicides under the Agricultural Pests Control Act. Official samples were drawn from fifty-five lots in the trade, and practically all were found to be within the requirements of the Act.

Farmers, dealers, and inspectors contributed production, supply, and markets information in regard to the several products under control, and reports were made to the Chief of the Markets Division, whose periodical market reports were widely published in Maritime papers.

EDUCATIONAL WORK

The inspectors judged at exhibitions and seed fairs, attended agricultural meetings and short courses, and gave addresses on seed production, seed crop inspection, and inspection procedure under the several Acts. Papers were given over New Brunswick radio hook-up on seed production in the Maritime Provinces, purity of variety in vegetable seeds, and the work of the seed laboratory. The inspectors are members of the provincial Seed Boards, which encouraged seed production through organization of seed competitions and cleaning centres, and issued information in regard to growing and preparation of exhibits for the World's Grain Congress at Regina. Junior farmers' organizations were interested in obtaining supplies of registered seeds, and county demonstrations were encouraged to show their superior value. Seed Branch notes were given to the Maritime press, and articles were published in Canadian and United States papers.

QUEBEC DISTRICT

This district comprises the province of Quebec with the exception of the counties of Wright and Pontiac. The headquarters are located in Montreal, with a sub-office in Quebec city. The district inspector and seven inspectors compose the inspection staff. Four inspectors are attached to the headquarters in Montreal, one is in Quebec city, and the other two are stationed at country points where their work can be performed efficiently with the least expense.

One of the inspectors in Montreal gives most of his time to the market reporting service; one is responsible for the grading and all correspondence pertaining to this particular phase of our work; and the other two devote their time to the enforcement, in Montreal and adjoining districts, of the different laws administered by the Seed Branch.

SEED PRODUCTION AND SUPPLY

The province of Quebec was not favoured with an early spring, which meant that the seeding operations were delayed and conducted under unfavourable conditions, especially in the eastern part of the province. During the growing season and early fall, however, good weather prevailed, which resulted in an average yield for agricultural crops in general.

Clover seed production has not increased to a marked extent. The quality of the seed was good, and the producers experienced no difficulty in having their crops graded No. 1. This is due largely to the establishment of seed cleaning centres in those districts. In Bagot county 15,000 pounds were grown, and in Chateauguay county 35,000 pounds.

The acreage of barley for malting purposes was increased and a good crop was harvested; but owing to a depreciation in the market value of this particular grain, the producers did not obtain what they expected. As a consequence a considerable quantity of barley, grown in Berthier district for that purpose, was disposed of locally.

The acreage sown to Alaska oats was slightly increased again this year. It is to be hoped that a sufficient quantity of this early variety of oats will be produced in the near future, as the demand from districts where the season is short, such as Abitibi, Temiscouata and Gaspé, becomes greater every year. About five thousand bushels of No. 1 grade of this variety were sold in Abitibi.

Two new seed cleaning centres, one in Iberville county and the other in Bagot county, were organized during the year in co-operation with the provincial department. This policy of establishing seed cleaning centres in various parts of the province has already brought good results. Several carloads of No. 1 seed oats were produced and marketed from those districts. About 15,000 bushels of No. 1 seed Banner oats, grown in Laprairie, Napierville, Berthier and St-Jean, were shipped in carload lots to different points of the province, through the medium of the Federated Cooperative.

Sixty-one thousand pounds of flax seed, grown in Soulanges county, were inspected and graded by our service, for exportation to Ireland.

Owing to a change of policy, on the part of the provincial Government, seed fairs and provincial exhibitions were discontinued. Their contention is that this work has served its purpose, and a change was necessary in order to stimulate the farmers towards the production of good seed, for their own use and for market. The moneys formally granted for prizes at the numerous seed fairs held throughout the province will in future be given to those farmers who are organizing themselves for the purchase of seed cleaning machines, a plan which promises to be more effective in encouraging the production and use of good seed. A certain amount is also given towards encouraging the farmers to use more lime on their farms.

SEED COMPETITIONS

Sixty-five combined field crop competitions were organized in co-operation with the provincial Department of Agriculture. The following table gives the results obtained on samples analyzed in connection with this work:—

Kind of Seed	No. 1		No. 2		No. 3		Rejected		Total
	No.	%	No.	%	No.	%	No.	%	Number
Oats.....	413	26.0	170	10.5	248	15.5	765	48.0	1,596
Wheat.....	35	20.0	32	18.0	29	16.5	79	45.5	175
Barley.....	59	28.0	28	13.0	26	12.0	102	47.0	215
Peas.....	40	40.0	16	16.0	25	25.0	19	19.0	100
Vetches.....	26	75.0	4	11.0	2	6.0	3	8.0	35
Red clover.....	72	35.5	63	31.0	44	21.5	32	15.5	211
Totals.....	645	27.6	313	13.8	374	16.1	1,000	42.5	2,332

The high percentage of rejected seeds is due to inefficient cleaning and to several counties organizing these competitions for the first time this year. In the counties where this work was introduced several years ago a marked improvement has been observed. The germination of the competition samples averaged 90 per cent.

REGISTERED SEED

The production of registered seed has not increased, due to lack of demand for high priced seed and the competition of seed of No. 1 grade. The following table indicates the quantities registered during the year:—

Kind of Seed	Variety	Registered No. 1	Registered No. 2
		bushels	bushels
Barley.....	O.A.C. 21.....	446	.....
Oats.....	Banner.....	523	588
	Alaska.....	1,410	209
Peas.....	Arthur.....	59	.....
	Mackay.....	69	.....
Wheat.....	Huron.....	.....	64
Totals.....	.....	2,507	861

INSPECTION

The inspectors covered 1,785 points during the year, and visited 5,038 merchants divided as follows: 2,390 seed, 1,652 feed, 509 fertilizer, 28 hay, 381 insecticides and fungicides, and 78 binder twine. Official samples taken in the course of these visits were: 1,274 seed, 249 feed, 115 fertilizer, 148 insecticides, 22 binder twine.

Although a large number of official samples of seed were taken there were very few violations of the Seeds Act. The seed trade generally observes the law and is interested in seeing that it is rigidly enforced.

Nearly all brands of feeding stuffs were sampled, at least once. No violations were reported against the large manufacturers of feeding stuffs. As with the large seed houses they are interested in having the law properly applied. This is not the case, however, with some of the small mills and some dealers who are marketing locally feeding stuffs mixed on their own premises. Although no prosecutions were recommended the inspectors have been active in keeping these local firms under close observation.

Considering the large quantities of fertilizers imported and sold in this province as compared with previous years, the number of official samples taken does not seem very high. This is due to the fact that the inspection was done in most cases at ports of entry rather than at country points. Samples taken, therefore, might represent several carloads instead of small shipments or just a few bags. This system was found satisfactory, as the fertilizers imported at the present time generally conform to their guarantee.

There were 933 tons of hay inspected by our inspectors and 1,067 tons under the fee system, making a total of 2,000 tons, mostly No. 2 and No. 3 timothy. Outside of the large firms which ask for government inspection as a measure of protection, there is practically no request for inspection. It might be noted, however, that those firms will pay more for hay that comes within grade than for ungraded hay.

The enforcement of the law controlling the sale of insecticides and fungicides has awakened a good deal of interest on the part of the dealers and the manufacturers, as well as the users of these products. Good results have already been obtained and the violations reported are attributable more to ignorance of the requirements than to the intention of dealers to evade them.

All the binder twine samples taken were found to be within the law.

Regular market reports of the trades affected by Seed Branch inspection were forwarded periodically to the Markets Division of the Seed Branch.

EDUCATIONAL WORK

The inspectors attended agricultural meetings and short courses held in their respective districts, and spoke on subjects pertaining to their work. Two inspectors gave short courses to the students of the French agricultural schools. This work was very much appreciated and will be continued in the future.

Meetings of the Provincial Seed Board were regularly attended by the district inspector or one of the inspectors. Assistance was given to provincial officers in organizing seed cleaning centres.

EASTERN ONTARIO DISTRICT

Ottawa is the headquarters for the district which comprises Old Ontario, east of York county, and the Canadian National Railway running from Toronto to North Bay, New Ontario to Lake Nipigon, and Wright and Pontiac counties in Quebec.

SEED PRODUCTION AND SUPPLY

There is a wide range of conditions in this district, and during many seasons the local supply of seed would be inadequate. Nearly all the cereal crops do well, and of the small seeds red clover, alsike, and timothy may be produced in abundance. However, in spite of these facts there are few seasons when some sections, and often very large areas, are not short of one or more kinds of seed. Last season was no exception, as considerable seed stocks of oats and barley were needed in eastern Ontario in addition to those produced locally. The needs were less for 1929 than for 1928. Meadows and fall wheat came through the winter in good condition. Sufficient rains fell to ensure a good crop. Good weather prevailed for saving the hay and harvesting the grain crops. Most of the timothy was saved as hay, and very little was harvested for seed which increased the demand this season for timothy seed.

Very dry weather set in before the spring crops reached their normal growth, with a resulting decrease in the yields of barley and oats. Some of the later sown crops were rather light in the kernel, but the vitality was not impaired. The pea crop was greatly affected by the dry weather and was below the average in yield for both garden and field peas.

The yield of alsike seed was influenced by the dry weather conditions, and much of it was only a fair sample for colour and purity. Considerable quantities are still held by the growers. The red clover seed crop was above normal in both yield and quality, being one of the cleanest harvested for many years. The low price prevailing resulted in all of this seed being consumed. Early sown cereals gave the best results, both in yield and quality. While central and eastern Ontario had crops below normal, Northern Ontario had unusually good crops, and as a result some parts had seed barley and oats for sale as well as some small seeds, chiefly timothy and alsike mixtures.

INSPECTION

Inspectors visited 1,590 places, in many of which several different inspections were made. Inspections include 2,268 for seed, 578 for feed, 86 for fertilizer, and 18 for binder twine. A number of minor violations of the Acts were settled by satisfactory adjustments. One seed case was taken up in which judgment was reserved, although the offender was virtually found guilty.

The combined seed crop and cleaned seed competitions numbered 21. 15 with barley, 4 with oats, 1 with wheat, and 1 with red clover. There were 273 growers who had some 3,500 acres in registered crops which would yield at least

115,000 bushels of seed grain. Following are the quantities of seed finally inspected and graded for market:—

Seed	Reg. No. 1	Reg. No. 2	Reg. No. 3	Comm. No. 2
	bushels	bushels	bushels	bushels
Oats.....	1,462	429	613	5,600
Barley.....	1,070	2,334	1,162	70
Wheat.....	868	90		202
Totals.....	3,400	2,853	1,775	5,872

There were 133 bushels of red clover seed sealed and certified as No. 1 and No. 2 grades.

Markets information relating to commodities subject to inspection by Seed Branch officers was secured regularly and transmitted to the Markets Division.

Most of the educational work done was in co-operation with the provincial Departments of Agriculture. A number of meetings were attended in company with the Assistant District Weed Inspector for Eastern Ontario, who is charged with the enforcement of the Ontario Weed Control Act. These meetings were attended by weed inspectors, one for each municipality, and by road overseers and members of municipal councils. Lectures were given on some of the more prevalent weeds and those most difficult of eradication, with recommendations for control measures. The Seeds Act was also discussed as a means for preventing the spread of noxious weeds through the seeds of commerce.

Inspectors assisted the Ontario Agricultural Representatives in holding a number of their short courses, when lectures were given on the various Acts administered by the Seed Branch. They also gave assistance at examinations held in seed judging at the various judging courses for junior farmers, and frequently furnished the material for these classes. Several fall fairs were given assistance in judging the grain, field roots and garden vegetables, and at the Central Canada Exhibition and the Ottawa Winter Fair inspectors were active in arranging and judging of seed exhibits. The Central Canada Exhibition seed exhibits were practically doubled this year as a result of the inspectors' encouragement and support.

The two itinerary seed fairs held by the Ottawa Valley Seed Growers' Association, at Arnprior, and the Quinte Seed Growers' Association, at Napanee, were unqualified successes and will prove a great stimulus to good seed production in the future.

Considerable assistance was also given to seed cleaning plants in the district, and five more places are being served by one or more units, in addition to the twenty or more centres where such plants had been organized previously.

WESTERN ONTARIO DISTRICT

This district includes Old Ontario west of and including the counties of York, Simcoe, Muskoka and Parry Sound. The district office and seed laboratory are located in the Seed Branch building at 86 Collier street, Toronto. The personnel consists of the district inspector, one senior and six other inspectors, and a clerical staff. Three inspectors are stationed at convenient points in sub-districts. One man was transferred to the headquarters staff at Ottawa at the beginning of the calendar year. One inspector devotes his time to markets work, the remaining number being required to grade samples received at the laboratory, to inspect and grade hay and straw, to sample seeds being imported, and to inspect products required to be sold in accordance with the provisions of the various Acts administered by the Seed Branch.

SEED PRODUCTION AND SUPPLY

This district produces a wide variety of clovers, cereals, and other grain and forage crops, and in favourable years harvests seed of these in commercial quantities. There was a further increase in the acreage devoted to corn for husking over that of the previous year, due to the efforts put forth in the control of the European corn borer, and a considerable quantity was saved for seed. The red clover seed crop was one of the best harvested in recent years, for both yield and quality, and the prolonged dry season, while unfavourable from other standpoints, favoured the successful harvesting and threshing of the seed. With liberal stocks of good quality seed of this desirable forage crop, prices began at unusually low levels. The demand was accordingly stimulated, with the result that before seeding was over in the spring of 1930, seedsmen were obliged to import considerable quantities of foreign seed.

The alsike acreage kept for seed was much greater than usual, so that while some yields were unprofitably low, the total production was above normal. An unfortunate coincidence was the failure of the foreign market to absorb its usual quantity, or indeed more than relatively small amounts, which resulted in low prices and a considerable carryover.

Alfalfa was practically a failure from the standpoint of seed production, and the demand for seed in the spring of 1930 was met largely by imported stocks, principally from the northern United States and from Utah.

The amount of sweet clover seed harvested was also much below that of former years, owing chiefly to the carrying over of large quantities from previous seasons.

With an increase in the number of organized field crop and cleaned seed competitions a larger acreage was devoted to crops grown from registered grades, particularly of oats and barley. The yields of these were only fair, though weather conditions at time of ripening were favourable and the seed harvested was of good quality and sufficient in quantity to meet the spring demand. The fall wheat crop, especially in the northerly and westerly counties, was exceptionally good, ranging in yield from 25 to 50 bushels per acre. Hay was of exceptionally good quality, as there was little rain at cutting time to retard operations and impair curing.

The new seeding of red clover and, to a lesser extent, of alsike was adversely affected by prolonged dry weather during the summer and subsequently by considerable winter killing.

INSPECTION

Practically all commodities coming under the supervision of the Seed Branch are found in extensive quantity in this district. In addition to the seeds of local production there is a varied and important list of imported stocks, particularly timothy, field root and garden vegetable seeds, to which one inspector must devote the greater part of his time and attention, though close co-operation is had with customs officials.

Relatively few seeds are imported, but large shipments of Standard recleaned screenings are distributed, chiefly in areas within convenient rail haul from port elevators. Several large milling firms operate within the district, in addition to numerous smaller mills ranging from 75 to 200 barrels per day capacity, and there is an even greater number of manufacturers of mixed feeds.

Several important fertilizer manufacturers are located within this area whose output is, however, supplemented with importations of thousands of tons of superphosphate and mixed fertilizers from the United States.

The bulk of the binder twine manufactured in Canada is produced in three of the southerly counties, and in the same neighbourhood are located several manufacturers of agricultural poisons.

All of the aforementioned industrials are visited periodically by inspectors, and for further ensuring that the products are sold in conformity with the provisions of the respective Acts which govern their sale, systematic inspection is made after their distribution to the trade.

In Toronto the inspection of hay is an important part of the duties performed, requiring a liberal share of one inspector's time throughout the year.

Field inspection is made of cereals, corn, flax and clovers for registration or certification of the seed harvested, this work requiring, during the following winter, considerable time on the part of most of the inspectors for final inspection and sealing.

One prosecution was successfully conducted under the Seeds Act, and two lots of fertilizer were seized under authority of the Fertilizers Act and withheld from sale until properly labelled, while numerous parties were warned by letter of minor infractions of the various Acts.

Visits were made to 1,187 points and inspections included 1,468 seed, 659 feed, 400 fertilizers, 26 binder twine, 102 poisons, and 293 hay and straw. The total official samples taken by inspectors were 1,853 seed, 278 feed, 715 fertilizer, 114 binder twine, and 75 poisons. Field crops inspected totalled 2,591 acres, including 1,574 of oats, 613 of barley, 147 of red clover, and lesser areas of wheat, peas, flax, alsike, corn, soy beans, and alfalfa. There were 9,407 bushels of seed inspected for market as follows:—

—	Reg. No. 1	Reg. No. 2	Reg. No. 3	No. 1	Total
Wheat.....		126	236		362
Oats.....	4,078	1,693	1,050		6,821
Barley.....	1,495	326	170		1,991
Soy beans.....	1				1
Peas.....		45			45
Red clover.....				187	187
Total.....	5,574	2,190	1,456	187	9,407

Inspectors examined and graded 1,143 tons of hay and 87 tons of straw. There were 14,680 samples of seed analyzed. This included 1,043 samples for the seed drill survey. Total imports of seed were 12,652,597 pounds.

Revenues collected, amounting to \$3,675.34, were made up as follows: field crop inspection, \$271.16; seed inspection, \$347.16; hay and straw inspection, \$300; analysis of samples, \$2,757.02.

EDUCATIONAL WORK

This office continued to co-operate with the provincial department in connection with assistance for the Better Seed Train, seed meetings, short courses, etc. Inspectors met the competitors in combined seed competitions to discuss the placing of samples, and acted as judges at fairs and exhibitions. The district inspector attended regular meetings of the Ontario Crop Improvement Committee, which functions also as a provincial Seed Board. He also judged seed grain at the Royal Winter Fair, Ottawa Winter Fair, and others.

The success of the work accomplished by the seed drill survey of the previous year led to a more intensive survey being undertaken in the county of Oxford this year, 1,043 samples of seed grain being analyzed and graded at this office. Special field inspection of Mammoth red clover was conducted in Welland county and of red clover and alsike in the county of Simcoe.

MANITOBA DISTRICT

This district includes the province of Manitoba, with that part of Ontario which is west of lake Nipigon. The district office and laboratory are located at 812 Commercial Building, Winnipeg, and there is a sub-office at 211 Grain Exchange Building, Fort William, Ont. A district inspector, two senior inspectors, and four inspectors are employed.

SEED PRODUCTION AND SUPPLY

Spring conditions were normal, but cool weather predominated until June. Seeding commenced April 15 and was general April 23. In spite of an extremely dry growing season Manitoba harvested a wheat crop almost average in yield and of a much higher grade than usual. Barley yielded seventy per cent and oats about sixty per cent of average crops. In some of the less favoured districts there was a shortage of feed, and to a lesser extent a shortage of seed oats. In all parts of the province occasional crops of wheat on summer-fallow yielded from 25 to 30 bushels per acre.

The returns from grass and clover seed crops were quite varied. Brome represented the lowest yield experienced in the province for many years, and many crops were so light as not to be worth harvesting. Western rye grass yielded more seed per acre than brome. Although the former is a native crop which originated in Manitoba, there were few fields saved for seed, as its popularity is confined principally to the southwestern quarter of the province. Meadow fescue, more recently favoured in this province, has found its location as a suitable crop in eastern Manitoba and north of the Canadian Pacific Railway main line towards the park belt. A small amount of timothy seed was saved in the Swan River district and at other scattered points, but only to meet the needs of the growers as the price offered at present is not encouraging.

The dry, warm weather seemed ideal for the development of sweet clover, alfalfa, red clover and alsike seed. There is no centre specializing in the production of sweet clover, but many farmers saved enough seed for their own use and others saved amounts ranging from 3,000 to 80,000 pounds. This is a good showing as compared with last year, when at least eight carloads were brought in from Ontario and some from the south. Small areas of alfalfa were found scattered very widely over the province which gave seed of satisfactory yield and quality. Similarly red clover and alsike promised returns per acre far in excess of recent years; yet the production of these two crops is confined to the Dryden, Oxdrift, Kenora and Rainy River districts in northwestern Ontario, and to Piney, Beausejour and Whitemouth in Manitoba. Seed of red clover was distributed in the Swan River district as well as at Piney three years ago. The latter point now has a huller and threshed 30,000 pounds of seed in 1929; but in the north, although there was an excellent growth, clover was slow to set seed. At Dauphin, alsike clover, introduced two years ago, gave a good crop to those who saved seed this year.

INSPECTION

Inspection of crops for registration and certification in Manitoba and Northern Ontario necessitated visits to 126 points, 212 farmers, and 305 fields, totalling 5,224 acres. The estimated yield was 103,859 bushels of cereals and 52,475 pounds of brome. The following quantities of seed were inspected, graded and sealed during the crop year:—

	Reg. No. 1	Reg. No. 2	Reg. No. 3	No. 1	No. 2
	bush.	bush.	bush.	bush.	bush.
Wheat.....	1,870	8,077	134	14,906	103
Oats.....	5,973	9,786	821	338	.....
Barley.....	2,189	1,100	188	35	481
Totals.....	10,032	18,963	1,143	15,279	584
Brome.....				lbs. 35,756	lbs. 6,440
Brome and western rye grass.....				650	.....
Alsike.....				22,650	.....
Red clover.....				1,260	530
Alfalfa.....				4,800	.....
Totals.....				65,116	6,970

Inspectors visited 738 points, store and warehouse inspections totalling 1,878 for seed, 820 for feed, 45 for fertilizer, 268 for insecticides, 44 for binder twine, and 51 for hay and straw. These inspections resulted in taking 1,255 official or investigational seed samples, 190 feeding stuffs, 8 fertilizers, 59 binder twine, and 45 insecticides. There were 7,287 samples received from farmers and dealers and tested and graded at headquarters. Official feed, fertilizer and insecticide samples were sent to Ottawa for analyses. Customs samples totalled 1,888, representing 948,646 pounds of seed imported. In addition to wholesale and retail seed houses, the city freight sheds were visited frequently, and inspection of shipments in transit gave a check on the quality of seed marketed. Improvement was noted in the quality and purity of seed shipments, and only one prosecution was necessary under the Seeds Act.

Revenue collected totalled \$3,380.25, made up as follows: analysis and testing of samples, \$1,147.25; hay inspection, \$3; field crop inspection, \$969; seed inspection, \$1,260.50; and weed seed collection, 50 cents.

Attention was paid to seed offered for sale by seedsmen and farmers. Those advertising without a grade were written to, also the medium of journal carrying such advertisements. The principal criticism of farmers' shipments of seed was their lack of uniformity. The need was stressed for taking representative samples for grade and always shipping up to sample. The germination of vegetable seed in paper packets showed a few firms to be rather delinquent in labeling packets which were below minimum standard. Feed samples were found satisfactory. As usual, only a few fertilizers were found on this market. These were sampled and found to comply with manufacturers' guarantees. Increased interest in fertilizers was noted, probably due to the wide investigations being conducted by the Consolidated Smelters. Binder twine was sampled in advance of the season at large warehouses in Fort William and Winnipeg. All brands were found to come well within the margin of tolerance as to length per pound guaranteed, being an improvement over last year. Insecticides and poisons were checked very closely. Old stocks were objected to and registrations insisted upon, as it was felt that the Agricultural Pests Control Act had been sufficiently long in effect for manufacturers to be aware of its requirements.

Attention was given to securing information regarding supply and demand of commodities falling within the scope of the Seed Branch.

EDUCATIONAL AND DEVELOPMENT WORK

Lectures were given by the district inspector and inspectors at seed growers' meetings, short courses, and classes at the Agricultural College, and press articles and a radio talk prepared on the subjects pertaining to Seed Branch

activities. The district inspector continued as secretary of the Manitoba Seed Board, acted on several committees for better seed promotion, and judged seed at the Royal Winter Fair, Toronto, and the Provincial Seed Show, Brandon. A short article on alfalfa was prepared for enclosure with all reports of analyses of grain samples, with a view to improving next year's feed supply on Manitoba farms. A list of graded seed for sale, on which owners had stated quality and price, was prepared for use in answering inquiries. Clover seed production was encouraged by field inspection of alsike and red clover for certification as to freedom from bladder campion. In addition, a number of pound samples of Manhardy and Altaswede single-cut clover were distributed to boys in the Swan River district. An inspector assisted with seeding these samples and called on the co-operators in the fall, when a good catch was noted.

A seed drill survey was again made, but was confined to single townships in each of the four representative districts, the result of which showed room for improvement in the cleaning of home-grown seed supplies and an opportunity for further development of community seed-cleaning plants.

SASKATCHEWAN DISTRICT

This district comprises the province of Saskatchewan, with the district offices and laboratory located at Saskatoon. The personnel of the inspection staff consists of the district inspector, four inspectors, and a clerical staff. One inspector is stationed at Regina and another at Moose Jaw, while the remainder work out of Saskatoon. Two additional inspectors are employed during the rush periods.

SEED PRODUCTION AND SUPPLY

The quality of seed for use in the spring of 1929 suffered considerably by frost. Farmers, however, made an effort to obtain the best seed possible, with the result that very few cases were noted in which crop failure was due to poor germination. The popularity of Garnet and Reward wheat again increased in northern Saskatchewan. There seems also to be an increasing demand for the so-called "Sixty-Day" barley, and some of the earlier oats such as Alaska and Gopher.

Very promising weather conditions prevailed during the seeding season; but shortly afterwards the crops over a large part of Saskatchewan began to suffer from drought. The low precipitation, coupled with hot, dry, windy weather, resulted in low yields of all grains in southern and central Saskatchewan (with the exception of a fairly large district around Rosetown) and the extreme northwest portion of the province, where there was sufficient moisture to mature a good yielding crop.

Harvesting commenced earlier than usual, and ideal weather resulted in a good appearing sample of wheat, although the quality varied considerably in the dry areas, according to the degree of shrunkness and number of broken kernels. Taking the province as a whole, there was no shortage of seed barley or wheat for the spring of 1930; but the oat crop was so far below that approximately 250,000 bushels of seed oats were obtained from northern Saskatchewan and Alberta. The demand for top generation registered wheat, oats, and barley for the spring of 1930 was unusually keen, and all such stocks were placed early in January.

INSPECTIONS

There was an increase in seed crop inspections of registrable varieties, also of varieties of grains inspected with a view to certifying the resulting seed as to purity of variety. There has been a decided improvement in the purity of the fields inspected. Brome and western rye grass inspections, made in order

to certify approved seeds as free from couch, decreased in number. Inspection of seed crops other than brome and western rye necessitated visits to 391 points, 722 farmers, and 1,226 fields, totalling 36,998 acres. Visits were made to 12 farms with 924.25 acres of brome and western rye. From these crops the following quantities of seed were inspected, graded and sealed in the sack, totalling 140,749 bushels and 66,929 pounds:—

—	Reg. No. 1	Reg. No. 2	Reg. No. 3	No. 1	No. 2	No. 3
	bush.	bush.	bush.	bush.	bush.	bush.
Wheat.....	25,691	16,158	8,251	15,876	505	78
Oats.....	15,742	17,650	6,477	3,743	10,559	4,382
Barley.....	3,399	1,638	1,031	6,478	658	
Flax.....	1,491	471		397		
Rye.....					74	
Totals.....	46,323	35,917	15,759	26,494	11,796	4,460
	lbs.	lbs.	bls.	lbs.	lbs.	lbs.
Sweet clover.....	248	6,557	82	17,992	4,357	
Alfalfa.....	5,372			309		
Brome.....				19,266	1,146	
Western rye.....				11,600		
Total.....	5,620	6,557	82	49,167	5,503	

In addition to the above, seed inspection certificates were issued covering 16,513 bushels of seed oats inspected from quantities taken into storage by the provincial government.

Inspectors examined and graded 221.36 tons of hay. There were 9,704 samples of seed tested, graded and reported, which includes 2,880 samples from the seed drill survey. Seed importation amounted to 114,960 pounds, the samples of which are also included above.

The total number of points visited was 1,144, and inspections included 2,432 seed and field crops, 357 feed, 10 fertilizer, 6 binder twine, 25 hay and straw, and 778 insecticides and fungicides. These visits resulted in the taking of 558 official seed samples, 54 feed, 5 fertilizer, 14 binder twine, and 216 insecticides. The total number of seed samples mentioned includes official samples on all registered seed lots sealed.

Extensive correspondence was carried on with vendors whose products failed to meet the requirements of the Act, and with seed advertisers whose advertisements were misleading or not properly worded. The great majority of the offences were due to ignorance of, rather than to any desire to evade the regulations.

Rapid development in seed cleaning and marketing organizations has rendered it necessary that inspectors devote a liberal portion of their time to seed work. The new seed cleaning plant in Moose Jaw requires an inspector to be stationed there from early fall until late spring.

One inspector is required to devote particular attention to market reporting.

Revenue was collected as follows: analysis and grading, \$854; hay inspection, \$67.08; field crop inspection, \$4,700.76; seed inspection, \$3,658.66; total, \$9,280.50.

INVESTIGATIONAL

Seed drill survey samples, totalling 2,880, were analyzed and reported on, and a check was made on the germination of packet seeds of roots and vegetables. To determine their purity of variety, samples from bulk lots of seed grain which had been sealed under registered grades, were planted in observation plots at the university.

A study was made of the prevalence of loose smut from the field inspection reports on Reward wheat.

EDUCATIONAL

The district inspector judged at provincial seed fairs at Saskatoon and Regina, and judges were supplied from the inspection staff for a number of smaller seed fairs. Numerous articles and addresses were given on subjects relative to our work. A member of the staff has attended all meetings of the Saskatchewan Seed Board, and the district inspector is a member of the Saskatchewan Committee to further the interests of the World's Grain Show to be held in 1932.

Visits were made to seed growers in the Birch Hills, Pontrilas and Codette districts, where the Branch introduced numerous varieties of high grade seed of timothy, blue grass, alfalfa, and Alaska oats. The grasses were found to be in good, healthy condition and appeared suitable for the districts, but the growers felt that crops were unprofitable due to the difficulty in marketing. Some fields of alfalfa in the Pontrilas district were especially promising, and Alaska oats, because of their earliness, may become popular.

ALBERTA AND BRITISH COLUMBIA DISTRICT

The organization in this district includes an inspection office and seed laboratory at Calgary, and a sub-office at Vancouver. Five permanent inspectors, one of whom is a specialist working on field root and vegetable seed production in British Columbia, are employed under the district inspector. One inspector is required to assist in the office and take charge of grading. The others work throughout the district and are assisted by two temporary inspectors during the busy seasons. One inspector in each province is assigned to market reporting. The district work includes the grading and reporting of samples of seed received for analysis; examination and grading of bulk and sacked seed grain; seed crop inspection; seed, feed, fertilizer, hay, straw, binder twine, insecticide and fungicide inspection, and investigation of seed supply. During the year 10,809 samples of seed were received for testing and grading, a noteworthy feature being the large number of requests for grades. Microscopical analysis was made on 92 samples of feeding stuffs. The total revenue collected was \$6,380.24, of which \$4,715.74 was for inspection service.

SEED PRODUCTION AND SUPPLY

Cereals were seeded under favourable conditions, but during July these crops suffered from drought, which caused them to ripen early and harvesting was completed before frost. Yields were light on the average throughout Alberta, but the quality was better than usual, with the exception of the weight per measured bushel, which was below average. Alberta had a surplus of seed oats. About 250,000 bushels of this were absorbed by the drought areas in Saskatchewan. Our inspectors sampled 564 cars in order to secure sufficient quantities of suitable quality.

Late rains in July and August and the delay of frost enabled much lowland hay and green feed to mature. Grimm alfalfa seed production in the Brooks district totalled 300,000 pounds, of which 196,347 pounds were registered. The greater part of this seed was marketed in Ontario. Timothy seed in the Pincher Creek district was about one-quarter of the production last year, being about 500,000 pounds, all of which was successfully marketed. This crop was a failure in central British Columbia. Sweet clover is rapidly gaining in favour in Alberta, due to the tendency toward more mixed farming.

The central portion of British Columbia suffered from drought, with the exception of the Prince George district, where crops in general were good and hay was very heavy. In the Bulkley valley and lakes districts seed of Chewing's fescue and perennial rye grass was distributed to certain growers. Distribution of the two-cut red clover is also being made.

In the Sumas district of British Columbia 248,625 pounds of red clover and 32,000 pounds of alsike seed were produced. As this red clover is not considered sufficiently hardy for eastern conditions the market is very limited and growers were obliged to carry over considerable quantities.

Most of the vegetable seed production in British Columbia is on contract for British seed houses. Individual growers are producing profitably in this way; but the problem of marketing seems to be the greatest obstacle to small producers. The quality of vegetable seed produced this season was very good and yields were high. About 445 pounds of onion seed have been graded Registered No. 1, which is the first instance in Canada of this kind of seed being so graded. It is estimated that some 1,250 acres are producing field root, garden vegetable, and flower seeds, of which approximately one-half are flower seeds. The season's production of field root and garden vegetable seeds amounted to 184,600 pounds, of which 164,380 pounds were garden peas, 5,190 pounds mangel, 3,620 pounds bantam corn, 4,215 pounds onion, 4,400 pounds beans, 1,400 pounds lettuce, the balance of 1,395 pounds being comprised of smaller quantities of celery, beets, turnips, cabbage, radish and broccoli.

INSPECTION

The amount of correspondence with relation to the administration of the several Acts has continually increased. As many of the manufacturers of feeds, fertilizers and insecticides are located in British Columbia the need for a division of the district is increasingly evident.

Inspection of seed crops was made on 538 fields of cereals and 110 fields of alfalfa, the acreage being 14,905 and 2,470 respectively. Field inspection was made of the following vegetable seed and field root crops, mangel, swede, onion and carrot.

An increasing number of requests is being received for seed inspection on growers' premises. Inspectors took samples in eighteen grain competitions and one clover competition, and the following kinds and quantities of seed were eventually graded:—

—	Reg. No. 1	Reg. No. 2	Reg. No. 3	No. 1	No. 2	No. 3	Rejected
	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Wheat.....	9,428	4,305	1,380	7,934	1,222	843	.....
Oats.....	17,571	6,289	7,103	24,127	60,093	18,156	4,300
Barley.....	5	191	83	.....	.....	.....	.....
Totals.....	27,004	10,785	8,566	32,061	61,315	18,999	4,300
	lbs.	lbs.	lbs.	lbs.			
Alfalfa.....	76,317	101,595	18,435	.....	.....	.....	.....
Brome.....	.....	.....	.....	8,100	(certified)	.....	.....
Western rye grass.....	.....	.....	.....	2,750	(certified)	.....	.....
Onion.....	445	.....	.....	.....	.....	.....	.....
Totals.....	76,762	101,595	18,435	10,850	.....	.....	.....

Inspectors visited 1,613 points; 2,966 inspections were made under the Seeds Act, and 286 official samples were taken, the quality of which indicated that seedsmen generally are complying with the Act. Faulty advertisements of seed for sale in local papers and the farm press were brought to the attention of the advertisers and corrected.

Under the Feeding Stuffs Act 1,634 inspections were made and 476 samples taken. The largest proportion of violations was in connection with the sale of feeds containing ground screenings.

Fertilizer inspections numbered 328, with 156 official samples. Most of our manufacturers are meeting the terms of the Act, but it was necessary to make several seizures pending corrections in labelling.

Inspections under the Agricultural Pests' Control Act numbered 731, with 24 official samples. As this is a new Act most of our work has been educational.

Hay and straw inspections numbered 43. Only 132 tons of hay were graded under certificate, but considerable time was spent with growers and co-operative organizations, instructing them in quality standards.

Binder twine inspection required 55 visits and 71 samples were tested. Improvement has been observed during the year in respect to the labelling of binder twine by manufacturers.

EDUCATIONAL

Press articles were prepared, radio talks given, and meetings of farmers, weed inspectors and various associations interested in agriculture were addressed by the district inspector. Judging was done at various seed fairs, and branch exhibits were shown at the Alberta Seed Fair and Calgary Exhibition. Inspectors gave courses of lectures dealing with various phases of Seed Branch work to agricultural students at provincial schools of agriculture, and addressed several farmers' meetings. The district inspector acted as chairman of a committee, consisting of Wheat Pool and Provincial and Federal Government representatives, to organize junior crop competitions, and 485 boys and girls entered and were supplied with registered seed free. He also acted on provincial Seed Boards in Alberta and British Columbia, and was a member of the awards committee for the World's Grain Exhibition and Conference.

INVESTIGATIONAL

In co-operation with provincial authorities experiments are being conducted with "Chemical Weed Killer." Plantings have been made of samples taken from all registered varieties of wheat, oats, barley, rye and flax, for plot observation. A study is being made of germination results with peas, and seed from off-type heads of oats and wheat, and of various kinds of wild oats as well as of several grasses and legumes, has been planted in plots for the purpose of studying the resulting growth. Seed drill surveys were again conducted in British Columbia.

THE ENTOMOLOGICAL BRANCH

As in former years, the work of the officers of this branch has continued to develop with increasingly valuable results. Achievements from years of research in the biology and control of injurious insects, conducted by federal entomologists, are every year becoming more and more apparent, particularly in the known savings to crops of all kinds, as well as to other commodities which are subject to insect injury.

The following is an account of the work of the Branch during the year ended March 31, 1930.

DIVISION OF FIELD CROP AND GARDEN INSECTS

The losses from insects during 1929 to field and garden crops in general approximated those of 1928 and were at a relatively low level considering the Dominion as a whole. Owing to the peculiar weather conditions insects in the Prairie Provinces were not as injurious as expected but grave concern is felt in regard to 1930, the dry conditions of 1929 being very favourable for the increase of some of our most serious pests of prairie agriculture. Insect losses in Eastern Canada were about normal, the peculiar weather conditions of the year being

responsible for noticeable increase in injurious numbers of certain insects not usually of great consequence and the absence of others usually of economic importance.

Lest it might be thought that, in a year comparatively free from spectacular outbreaks, insects are of minor importance to Canadian agriculture, it may be mentioned that a conservatively estimated loss to the wheat crop alone in Saskatchewan from three major insect pests in 1929, attained a total of \$10,012,000; furthermore the estimated savings to the sugar beet growers resulting from a local control campaign in Alberta was \$26,000. The sum of \$5,900 saved upon one farm alone, in the latter province, in demonstrating the value of control practices recommended for the wheat stem sawfly.

Research investigations carried on by officers of the Division of Field Crop and Garden Insects have progressed most favourably, distinct advances of practical value being made in connection with many of the studies.

Two items of special interest in the development of the work deserve particular mention: (1) the fact that the prairie insect situation has become sufficiently well known resulting from studies incepted during the last few years to make it possible for our officers to anticipate the probable insect conditions for 1930 and (2) the establishment, in co-operation with the Statistics Branch of the Saskatchewan Department of Agriculture, of an annual estimate of the losses to wheat due to the major insects in that province, namely, wheat stem sawfly, cutworms, and wireworms. These advances are the culmination of several years' work, and will, undoubtedly, be of very great direct value to agriculture.

Studies of the grasshopper situation indicated that these insects are definitely on the increase and may reach outbreak conditions in 1930 in Prince Edward Island, each of the Prairie Provinces, and in range areas of British Columbia, necessitating organized control campaigns. The study of the bronze cutworm in New Brunswick indicated a decreased loss from this insect upon the marshes already attacked, but a possibility of their spreading to adjacent areas. A most unusual outbreak of the greasy cutworm over a large part of New Brunswick was carefully studied in order that advice regarding its control may be given should it recur in 1930. Carrot rust fly studies have yielded control recommendations, the adoption of which will be of great value throughout Eastern Canada. The investigations of the European corn borer again indicated that winter conditions in Quebec and Ontario do not affect the insect adversely and that the farm cultural control practices will be necessary throughout the infested areas. Weather conditions during the moth flight known to be of importance in controlling the abundance of the borer were under special observation in 1929. A study of the best farm implements and their use for maximum effect in control upon the ordinary farm was continued and the great value of the disc harrow in the preparation of stubble for ploughing was demonstrated.

An extension of the study of white grub infestations in Quebec province indicated that these insects were the cause of serious damage to a large variety of farm crops over a very wide area. Control results from the use of soil fumigants have promise of wide application, particularly to the higher-priced crops. In the continued study of the biology of the cyclamen mite, a promising method of treatment for young strawberry plants to prevent the distribution of the mite with the young plants was discovered.

The association of severe infestations of onions by the onion maggot with certain soil types was determined and it is hoped these studies will lead to a simplification of field control measures for this pest. Cutworm investigations with a variety of species carried on throughout the Dominion, indicated in Eastern Canada, with certain species, the close association between cropping

practices and abundance of the cutworm and the great importance of certain weeds as a food supply for cutworm moths. Both discoveries will probably have a direct application in control work. Similarly, in Western Canada, farm cultural control practices of handling both the crop and the soil were found to be most important in protecting sweet clover and other crops from loss by the bertha armyworm.

During the year encouraging progress was made in the studies of prairie crop rotation and insect abundance, as well as in the studies looking to the control of wireworms. Field tests associated with the latter are in progress and include observations on summer-fallow, types of seeding machinery, substitute crops, and poisoned bait practices. Wheat stem sawfly studies were productive of extremely significant results. The use of brome grass grown in association with wheat as a trap crop and its cutting for hay at a certain definite period not only greatly reduced the number of insects and the amount of damage to the wheat but increased the effect of native parasites in still further reducing the number of insects and their damage to the wheat. This is a circumstance of the greatest promise in the farm control of this pest on a very wide area. Numerous other studies of local importance have been in progress in connection with many of which satisfactory progress can be reported.

Increased use of the officers at the field stations was made during the year by direct call and correspondence from farmers and others seeking advice in regard to insect control. Distribution of information by addresses, by radio, through newspaper items and seasonably-timed circular letters to lists of correspondents, was continued when such was felt to be useful. Scientific papers giving details of studies were contributed to technical journals by officers of the Division.

During the year co-operative activities with other related Dominion and provincial services, such as the Experimental Farms System, the Irrigations Branch and National Parks Branch of the Department of the Interior, the local Departments of Agriculture and the agricultural colleges, were undertaken and satisfactory progress made.

DIVISION OF FOREST INSECTS

Investigation of airplane dusting for the control of defoliating forest insects was continued during the summer of 1929 on three areas in Eastern Canada and on one in British Columbia, and the method may now be considered perfected to the degree of usefulness.

Commencing in 1927, the Division of Forest Insects and the Dominion Air Service, in co-operation with the provincial Forestry Services, experimented with this method of control in the provinces of Nova Scotia, Quebec, and Ontario. In the preliminary experiments, conducted in 1927 and 1928, a small, single-engined plane was employed and the dust was applied in different doses on plots 1,000 feet in length. Outbreaks of the spruce budworm were treated in these experiments.

In the summer of 1929 a more extensive experimental operation on a spruce budworm outbreak in Ontario was conducted, and the technique of the operation under our forest conditions was finally perfected to a very satisfactory degree. For the 1929 experiments the Dominion Air Service provided a Ford tri-motor plane capable of carrying nearly one ton of dust. It was found that the spruce budworm was very resistant to control by poisoned dusts, and further experiments are required before this method can be recommended for the control of outbreaks of this insect.

A second dusting operation, carried out in 1929 in the province of Quebec for the control of a hemlock looper outbreak on a stand of balsam fir and spruce, gave very satisfactory results. In this operation, 15 tons of calcium arsenate

dust were distributed on about two and a half square miles, at rates varying from 10 to 20 pounds per acre. The dust was applied, during suitable weather conditions, at the rate of about one ton of dust per hour. The degree of control obtained in this case was practically perfect. Later examinations of the dusted area during the normal time of the moth flight disclosed that very few moths were to be found, so that the operation can be described as completely successful.

During the same period a similar operation was conducted by the Ontario Forestry Branch, in co-operation with the Dominion Division of Forest Insects, for the control of a hemlock looper outbreak in valuable areas of hemlock in the Muskoka region of Ontario. About 20 tons of calcium arsenate dust were distributed and the degree of control obtained was entirely satisfactory.

A third airplane dusting operation on a small scale was conducted in 1929, under the direction of the Dominion Division of Forest Insects and the Dominion and provincial Forest Services, on a hemlock looper outbreak in British Columbia, with the same very satisfactory results.

At present it may be said that airplane dusting can be utilized profitably in Canadian forests for the control of certain types of insect outbreaks. This method will be most useful in the control of outbreaks of insects like the hemlock looper, which appear on small areas and spread rapidly over extensive stands of timber, and in which the insects feed in an exposed condition on the foliage. This method cannot yet be recommended for the general control of outbreaks which develop rapidly over a wide expanse of forest at nearly the same rate; but even under these conditions the better stocked and more valuable stands can probably be saved by airplane dusting.

Further investigations are required, particularly with different types of insect infestations; a more suitable type of airplane is needed; and improvement, in the poison dusts designed for forest dusting is very desirable. But, at the least, there is now available a weapon with which some forest insect epidemics may be fought or prevented, and its efficiency may be expected to increase with its use.

Biological investigations of the spruce budworm were conducted at Westree, Ont. This extensive outbreak is spreading steadily to the west and south.

The hemlock looper outbreak on hemlock stands in the Muskoka Lakes area subsided to a marked degree during the summer of 1929. The airplane dusting operation for the control of this outbreak already described covered the greater part of the infested territory and was very effective in destroying the caterpillars.

The extensive outbreaks of hemlock looper in balsam stands along the north shore of the gulf of St. Lawrence, reported in 1928, were the subject of investigation in 1929 conducted by our officers with the co-operation of the Quebec Forest Service. The principal study was made on the Trinity watershed with supplementary studies and surveys on the Pentecost and Manicouagan watersheds. The habits of the insect, the degree of injury caused by it and a great deal of valuable data, has been obtained. The outbreak subsided noticeably on the Trinity watershed and was completely controlled by the dusting operation at Manicouagan. At Pentecost, however, the outbreak continued to spread and further biological studies are desirable on this area in 1930.

An outbreak of sawfly larvæ on jack pine has spread during the last few years throughout a great part of central Ontario and in western Quebec. In the region of lake Kipawa the injury has been severe. Surveys made by our officers in 1929 have determined that the outbreak is of sufficient importance to require thorough investigations which are being planned for 1930.

In 1929, an outbreak of a defoliating caterpillar, the balsam tip moth, was investigated by our officers in the southern part of Cape Breton Island in con-

junction with the Nova Scotia Department of Lands and Forests. Severe defoliation had occurred over some 200 square miles and our officers plan to conduct a thorough investigation of the outbreak in 1930 directed toward the possibility of control measures and salvage.

The larch case bearer has become a major pest of tamarack throughout a great part of Nova Scotia and New Brunswick during the past two years. The birch sawfly leaf-miner has become a major pest of birch stands throughout New Brunswick and Nova Scotia. The severe defoliation has checked the growth of the trees in many parts of this area, but without, as yet, causing any noticeable mortality. The hemlock borer has become very abundant in the proximity of valuable hemlock stands in Nova Scotia. The progress of these infestations will be watched carefully by our officers in 1930.

The larch sawfly was noticeably less abundant in 1929 than in recent years in the Maritime Provinces. In parts of Ontario outbreaks of the sawfly are still spreading.

The European beech scale and the European balsam woolly aphis are continuing to spread throughout Nova Scotia and in Westmorland and Albert counties in New Brunswick. The European beech scale is widely distributed in Prince Edward Island.

The investigation to fir-killed trees and logs caused by wood-borers was continued in 1929. The new method of control by distributing lime sulphur dust over piles of logs left in the wood exposed to beetle attack throughout the summer was subjected to further tests and as in the past gave satisfactory results.

Investigation on the parasites of certain forest insects, particularly of the larch sawfly, was conducted at the parasite laboratory at Belleville. A further distribution was made of the European parasites of the larch sawfly.

An investigation of insects affecting forest nurseries and forest plantations was undertaken in 1929 in co-operation with the Quebec Forest Service. An officer was appointed for these investigations and stationed at the Forest Nursery at Berthierville, P.Q.

Insects affecting shade trees in Eastern Canada were investigated from the laboratories at Ottawa, Ont., Fredericton, N.B., and similar injuries in British Columbia were investigated from our laboratories at Vancouver and Vernon. Shade tree investigations in the Prairie Provinces were continued as a special project from the Indian Head, Sask., laboratory. One of our officers stationed at this laboratory, working in co-operation with the Tree Planting Division of the Dominion Forest Service, investigates shade tree insect injuries occurring on the prairies and advises owners of shade tree plantations with respect to methods of control.

The satin moth outbreak in British Columbia was surveyed by officers of the Branch last year and was found to have extended northward up the coast of the mainland to Sechelt and Powell rivers; Vancouver island as far north as Campbell river and Port Alberni on the west coast; inland from Vancouver the caterpillars were found as far east as Hope and McGillivray falls and adult moths were taken at North Bend and Lillooet still farther inland.

An important fundamental study of the relation of biologic and climatic conditions to forest insect outbreaks has been in progress for the last two years at the Merivale laboratory near Ottawa with a two-fold object in view. An intensive study is being conducted on insects affecting the sugar maple with special reference to the maple leaf cutter and an attempt is being made toward the development of certain scientific methods in the study of forest insects with special reference to the defoliating species. The investigation is chiefly concerned with the causes underlying the rise and course of great insect outbreaks.

The control operations for bark-beetles affecting yellow pine in southern British Columbia were brought to a successful conclusion two years ago and it

is gratifying to be able to report that the outbreaks have been completely checked, no control work having been required in 1929. An operation for the control of bark-beetles in lodgepole pine was carried out last year with excellent results. In co-operation with the federal and provincial Forest Services forest insect surveys have been conducted by our officers in many parts of the forest. A particularly extensive survey was conducted on the eastern slopes of the Rockies and is being continued in 1930.

Hemlock looper outbreaks have occurred in stands of western hemlock at several places on the southern coast of the mainland in British Columbia, particularly at Indian river, Capilano valley, Seymour valley, Mill creek, Gold creek and at Stanley park in Vancouver. The outbreak at Indian river was treated by airplane dusting in 1929 with very satisfactory results.

The black-headed tip moth occurred last year in outbreak form on several areas in the southern coast of the mainland of British Columbia. The injury has extended somewhat since last year; but has not yet caused any important injury.

The spruce budworm has occurred in outbreak form on five areas in British Columbia during the last few years. In 1929, two of these outbreaks disappeared almost entirely and on the other three areas the injury appeared to be subsiding. In connection with one of these outbreaks in the Barkerville district the balsam bark-beetle has multiplied rapidly and killed a large quantity of timber.

In connection with the Trail Smelter Fumes Investigation, one of our officers spent a considerable part of the summer of 1929 investigating the relation between insect injury and smelter fumes on the area in question in co-operation with the National Research Council.

Investigations on the biology of important forest insects have been continued from our laboratories at Fredericton, N.B.; Ottawa, Ont.; Indian Head, Sask.; Vernon, B.C.; and Vancouver, B.C. Our knowledge of the habits of many species of forest insects and their relations to the health of the trees they attack is being extended each year by the discoveries made in the course of the work.

Studies in taxonomy and morphology of forest insect groups were conducted again as usual by certain of our officers during the winter months.

DIVISION OF FOREIGN PESTS SUPPRESSION

The work of the Division of Foreign Pests Suppression was conducted along the same lines during the year, as had been followed previously, although in many features, expansions added materially to the number of investigations and the volume of work performed. The lines pursued were: the administration of the Destructive Insect and Pest Act and regulations thereunder, the issuance of permits covering all importations of nursery stock, the inspection of such importations, the maintenance of quarantines, the application of control methods of foreign pests which have been found to have obtained a foothold in Canada, and the scouting of various areas in the Dominion for possible new infestations.

PLANT INSPECTION SERVICE

In the report of last year it was noted that four new plant inspection stations had been established, namely, at Halifax, N.S., Windsor, Ont., Winnipeg, Man., and Estevan, Sask. Ottawa was also made a port of importation. At the same time Regulation No. 1 (Foreign) which contains the general conditions governing the importation of nursery stock into Canada from all countries was revised and all importations of nursery stock are subject to reinspection upon entry, irrespective of the country of origin.

For the year of report it might be said that the above new inspection points have functioned very satisfactorily, and have amply demonstrated the need of their establishment in order to handle adequately and promptly the amount of nursery stock entering Canada, which is increasing yearly. Some difficulty was encountered at first, largely owing to the change in regulation as affecting imports from the United States, with regard to character of inspection certificate from the country of origin required under the revised regulation and the requirement that all shipments of nursery stock for Canadian points, must enter through one of the ports of importation as specified in the regulation.

It may be said, however, that United States nurserymen, and indeed those of all other countries have apparently become very generally familiar with our requirements, and little difficulty along the above lines has been experienced during the latter half of the year.

Some idea of the growth of the work in quantity of nursery stock inspected may be obtained from the statement that in 1919, the year the Division was formed, a total of 876,466 plants were examined, whereas in 1929 the total has risen to 48,044,686 plants entering Canada from all other countries, this being an increase of almost five million plants over the preceding year. The value of this stock as given by the report of the Department of Trade and Commerce is \$1,538,103, an increase of almost \$250,000 over the previous year's total valuation.

To cover the above importations 15,806 permits were issued, and the number of inspections of nursery stock carried on amounted in all to 9,316, an increase of 2,797 inspections over the former year. Interceptions of diseased plants or of insect pests amounted to 908. The pests intercepted included caterpillars, scale insects, borers, bulb flies, mites, plant diseases of various kinds, etc. In sixty cases plants were prohibited entry into Canada under some one of the regulations under the Destructive Insect and Pest Act. In 504 cases shipments were returned to the consignor owing to the fact that they were not properly inspected for pests and diseases in the country of origin.

Inspection of mail parcels amounted to 2,966 examinations of 3,515 containers in all. The plants so brought in amounted to 383,244.

As in previous years, passenger boats were visited by an inspector who examined such plants as were found in passengers' baggage. During the year of report 3,967 boats (an increase of 345) were so visited; 182 passengers were found to have plants with them. Among the interceptions made were some twenty-five instances of potatoes being brought in from Europe. These were confiscated under Regulation No. 3 (Foreign).

Ministerial authorization was granted in four cases for the importation of plants for scientific and research purposes, which otherwise would have been prohibited entry.

Exports of nursery stock amounted to 542 shipments, these being sent to twenty-one different countries. These figures represent a small decrease in the number of export certificates issued, but cover an increase of some 300 per cent in the quantity of nursery stock sent out. The material inspected and passed consisted of 245,361 bulbs, 403,661 ornamentals, 130,335 fruit trees, 15,683 conifers, 5,817 pounds of tree seed, 1,000 pounds of onion sets, 1,000 square yards of sod and 97 vegetable roots.

As in former years, the Division of Botany of the Experimental Farms Branch of the Department has co-operated in the identification of plant diseases intercepted by the inspection service, and sent to Ottawa for a report.

As to inspection of imported plant products, every endeavour is made to inspect these as completely as time and staff will permit, and an increase in the number of inspections made is regularly noted. During the year ended March 31, 1929, a total of 11,489 inspections of plant products were made, an increase of 4,935 over those of the year before, consisting of 3,154,463 containers

of commodities of all kinds from different countries, the gain in containers of all sorts examined being 1,173,405. In this work sixty-one interceptions of insects and plant diseases were made.

The total number of inspections during the year, in all projects was 21,451, an increase of 7,627 over the previous year. In addition 63,000 bushels of seed corn were examined in connection with the European corn borer quarantine.

The Brown-Tail Moth.—The inspection of orchard trees and other host plants for the nests of the brown-tail moth was continued in Nova Scotia in the most important districts during February, 1930. The area examined included sections of Yarmouth, Digby, Annapolis and Kings counties. It is a pleasure to report that no outbreaks of this insect were discovered. Scouting for the same pest was also carried on in the St. John river valley in New Brunswick, as well as in certain sections of York and Charlotte counties with the same encouraging results.

The European Apple Sucker.—The distribution of this pest in North America is confined to the Maritime Provinces. In an effort to prevent spread a quarantine is maintained on the movement of host plants. Scouting of areas bordering the known infested territory is carried on each year. Previous to 1929 this pest was confined to the provinces of Nova Scotia and Prince Edward Island and the counties of Westmorland and Albert in New Brunswick, but in that year a local outbreak was discovered at Westfield in Kings county, N.B., resulting in a revision of the quarantine to meet the condition.

The European Beech Scale.—This insect was discovered in Nova Scotia some years ago and has since spread into the counties of Westmorland and Albert in New Brunswick. Serious injury has resulted to the native beech. During 1929 observations were carried on by this Division in co-operation with the Division of Forest Insects to ascertain the spread of this pest in eastern New Brunswick. Slight westward spread and a general increase in the degree of infestation in the previously infested stands were noted.

The Gypsy Moth.—In 1924, the only outbreak of the gypsy moth in Canada was discovered near Henrysburg, P.Q., through organized scouting by officers of this Division in co-operation with the Quebec Department of Lands and Forests. As a result of eradication measures applied that year and the two succeeding years, this very serious outbreak was apparently completely eradicated, as no signs of the insect have been found since 1926.

Realizing the danger of similar outbreaks occurring in southern Quebec, as a result of spread from the areas infested in the New England States, scouting of the most important districts has been carried on each year. In 1929 special attention was given to the examination of tree growth along the major highways, a total of one thousand miles being scouted.

The European Corn Borer.—This insect was first discovered in southwestern Ontario in 1920; since that time it has spread as far west as Sault Ste. Marie in Ontario and eastward in Quebec very nearly to Quebec city. In 1928 an outbreak of the double brooded strain was found at several points in the St. John river valley, New Brunswick, and in 1929 a light but generally scattered infestation was found throughout the Annapolis Valley in Nova Scotia. The infestations in New Brunswick and Nova Scotia are not due to spread from Quebec, but, apparently to spread from the New England states where the double brooded strain occurs. Up to the present time no serious damage has been done to corn in either New Brunswick or Nova Scotia. In so far as Ontario and Quebec are concerned, the provincial Departments of Agriculture are requiring control operations to be carried out in the more heavily infested districts.

A quarantine has been placed on the infested areas, Ontario and Quebec being treated as one area and the three Maritime Provinces as a second area.

Corn and its products may not be moved from one area to another, or to points outside an infested area. Provision is made however, for the movement of shelled corn provided it is cleaned and accompanied by a certificate of inspection.

The Mexican Bean Beetle.—This insect was first found in southwestern Ontario in 1927, having gradually worked its way north from the southern United States. In that year ten local outbreaks were found in Kent, Essex, Elgin, Halton and York counties. In 1928 a comparatively severe outbreak was found in Norfolk county. The severe winters, however, appear to be holding this pest in check at the present time. Scouting carried on in 1929 resulted in one new infestation being found at Guelph, a second in Essex county and a third in Norfolk county.

The European Pine Shoot Moth.—Since the discovery of this pest in 1925, a campaign has been carried on to bring about its control and eradication, if possible. Infestations which occurred in small isolated districts from coast to coast have been kept under observation each year, and infested material destroyed. Satisfactory progress has been made towards eradication and in one or two sections where the outbreak has been exceptionally severe the degree of infestation has been materially reduced.

The Oriental Peach Moth.—This insect first found in the Niagara peninsula in 1925, has now spread over practically the entire peach growing sections of southwestern Ontario. Observations were carried on in co-operation with the Vineland entomological laboratory, to determine the increase or decrease in intensity of infestation in the various districts.

The Dutch Elm Disease.—As reported last year this serious disease of elms was discovered in Europe in 1919. The importation of elms into Canada from Europe has been prohibited since April, 1928. Elms imported in 1928, previous to the passing of the Regulation, have been held in quarantine and examined periodically. It is gratifying to report that no sign of the disease has been found. This work was carried on in co-operation with the Division of Botany.

The Satin Moth.—This European insect was discovered on the coastal section of British Columbia in 1920. It has since spread and is doing serious damage to poplars and willows. In 1928 a quarantine was placed on the infested areas prohibiting the movement of poplars and willows, to uninfested districts. During 1929 scouting was carried on to determine the spread and distribution of the pest. It was found as far east as North bend in the Fraser valley and Lillooet on the Pacific Great Eastern Railway. The most northern infestation on the mainland was found at Powell river, and on Vancouver island at Campbell river. Trains and boats were found to be a factor in distributing the insect.

The Lecanium Scale.—The lecanium scale, *Lecanium coryli*, another European insect was discovered in Vancouver, B.C., in 1910. It causes severe injury to several species of trees, but particularly to horse-chestnuts and maples. It can be controlled by oil sprays. Scouting carried on during 1929 shows it has spread throughout the greater Vancouver district.

During the year the Chief of the Division accepted an invitation to become a member of the Advisory Committee dealing with entomological exhibits for the Century of Progress Exposition to be held in Chicago in 1933.

A considerable number of papers were read and articles prepared for scientific journals, and lectures and talks before various institutions, at conventions, etc., were made by the officers of the Division during the period under report.

DIVISION OF SYSTEMATIC ENTOMOLOGY

The upkeep and maintenance of the Canadian National Collection of Insects is one of the main duties of the officers of this Division. Each year the necessity for maintaining this collection in a thoroughly up-to-date condition

becomes more apparent; field officers of the Branch require quick and accurate determinations of the numerous species in all orders of insects met with in their ecological and applied entomological studies; universities and other institutions, not only in Canada but also in the United States, are applying more and more frequently to us for help in the classification of various groups of insects contained in their collections; private individuals, interested in nature studies, are constantly sending in insect material for determination. Due to the fact that the policy of steadily building up the National Collection of Insects and of keeping it abreast of the times from a classificatory standpoint has been consistently carried out during the past ten years, such work as is above specified can now be handled, in most instances, very satisfactorily.

At the present time the National Collection is housed in thirty-eight steel cabinets each containing a unit of fifty specially constructed drawers which are thus rendered more or less pest-proof. The total number of drawers is, therefore, 1900, apportioned to the various orders as follows:—

	drawers
Hymenoptera (bees, wasps, ants, sawflies, ichneumon flies, etc.).....	225
Lepidoptera (butterflies and moths).....	700
Coleoptera (beetles).....	350
Diptera (crane-flies, mosquitoes, houseflies and all two-winged flies).....	275
Hemiptera (true bugs with sucking mouth-parts).....	100
Orthoptera (crickets, grasshoppers, etc.).....	50
Odonata (dragon and damsel flies).....	100
Ephemeroptera (may flies).....	50
Neuropteroid insects (stone flies, caddis flies, lace winged flies, etc.).....	50

Besides this there are two galvanized iron cabinets containing racks of material preserved in alcohol, ten cabinets of slide material of minute insects, insect-parts, etc., and several hundred cork-lined, tight-closing wooden boxes (so-called Schmitt boxes) with duplicates or unworked material.

As it now stands the National Collection of Insects is the most complete collection of Canadian insects in existence and ranks, in fact, as one of the leading collections of North American insects on the continent; in some groups, notably the may-flies, certain families of beetles, butterflies and moths, and aquatic bugs, to which special study has been given, the collections can not be surpassed anywhere.

Research work and taxonomic studies, based on the material in the National Collection, have been continued with marked success during the past year; not only has such work been carried on by divisional officers but considerable material has been loaned on request for study to taxonomists in various museums and institutions in the United States. As a result approximately one hundred species of insects new to science have been discovered amongst this material and described; the resulting type-series have been deposited in the National Collection, thus adding materially to its value. Furthermore, through exchange or co-operation with other institutions, another hundred types have been added during the year. At the present time there are over 3,100 species of North American insects represented by type material in the Canadian National Collection; such type material is of vast assistance in determination work and, where the type-series is an extended one, can be very profitably used as a basis for exchange with other museums.

One of the most profitable sources of material for the National Collection have been the Insect Faunal Surveys conducted by divisional officers in various sections of the Dominion during the past six or seven years; not only is interesting data concerning the distribution and habits of known Canadian insect-species accumulated, but many new records of insects heretofore unknown to our fauna are obtained. During the past year three such surveys have been undertaken as follows:—

(1) Along the north shore of the gulf of St. Lawrence from Trinity bay on the west to Bradore bay at the western entrance to the straits of Belle

Isle. The insect fauna of this rather desolate region has been very imperfectly known and has proved to be most interesting, forming a connecting link between the typical Arctic zone occurring on the coast of Labrador and the Canadian and Hudsonian zones of central Quebec. Many species, described half a century ago and since then practically unknown to science, were secured in numbers.

(2) In the Knowlton and Brome lake region of southern Quebec. This survey was a continuation of work done in 1927 and 1928 and was especially directed to securing a further knowledge of the aquatic forms of insect life; the diversified topographical conditions existing in this region made it most suitable for such studies and a large amount of material was secured which will form the basis for detailed investigations.

(3) In the southwest section of Alberta. This was also a continuation of work carried on in 1923 and 1928 and was under the supervision of the officer in charge of the Lethbridge field laboratory. Considerable work in the semi-arid regions along the international boundary was undertaken as well as in the vicinity of Medicine Hat, the main efforts being directed toward securing a knowledge of the aquatic insects inhabiting the streams of this region.

Through purchases from second-hand entomological book-dealers many valuable additions to the taxonomic section of the Branch library have been made.

DESTRUCTIVE INSECT AND PEST ACT ADVISORY BOARD

The Destructive Insect and Pest Act Advisory Board was constituted in 1922, for the purpose of recommending to the Minister such changes in the regulations under the Destructive Insect and Pest Act as may be deemed necessary. During the year several meetings were held by the board, to consider questions in connection with preventing the introduction into Canada or spreading therein of pests or diseases destructive to vegetation, and relative matters. The secretary of the board is empowered to issue permits for the importation of plants from all countries, details in connection therewith will be found under the report of the Division of Foreign Pests Suppression. The following regulations were approved by Order in Council:—

Regulation No. 1 (Foreign) 2nd Revision. P.C. 772, May 8, 1929.

Governing the admission of nursery stock into Canada.

This regulation was amended by making Ottawa a port of importation for all classes of nursery stock, previously only shipments for "scientific purposes" could enter through this port.

Regulation No. 2 (Domestic) 8th Revision. P.C. 772, May 8, 1929.

Restricting the movement of corn, etc. from the province of Quebec and certain sections of the province of Ontario.

This regulation was amended by including in the quarantined area the entire province of Quebec and certain sections of Ontario, on account of the spread of the European corn borer.

Regulation No. 4 (Foreign) 2nd Revision. P.C. 1146, July 2, 1929.

Restricting the importation of plants and plant products from Florida and the Hawaiian islands.

On account of the severe outbreak of the Mediterranean fruit fly in the state of Florida, this regulation was amended by requiring that all plants and plant products imported into Canada from that state shall be accompanied by a certificate of inspection.

Regulation No. 4 (Foreign) 3rd Revision. P.C. 368, February 17, 1930

Restricting the importation of plants from the Hawaiian islands.

In view of the stringent quarantines placed on the areas infested by the Mediterranean fruit fly, by both the United States and Florida Departments of Agriculture, the restrictions with regard to certification of plants etc. were removed. This regulation was further amended by permitting the importation of ginger root, and taro under certification from the Hawaiian islands.

Regulation No. 18 (Foreign). P.C. 368, February 17, 1930.

Prohibiting the importation of wheat from Australia and Asia.

This is a new regulation. On account of the disease known as flag smut, which is not known to occur in Canada, the importation of wheat, including straw, bran and chaff from Australia and Asia is prohibited, unless accompanied by a certificate to the effect that the material was harvested in a district free from this disease.

Regulation No. 1 (Domestic) 4th Revision. P.C. 368, February 17, 1930.

Restricting the movement of apple, pear, quince and European mountain ash stock, in the provinces of Nova Scotia, Prince Edward Island and New Brunswick.

This regulation was revised by placing under restriction only the host plants of the European apple sucker instead of all nursery stock. It was also amended to include additional territory found infested by the pest.

Regulation No. 2 (Domestic) 9th Revision, P.C. 368, February 17, 1930.

Restricting the movement of corn, etc., from the Maritime Provinces, Quebec and certain portions of Ontario.

This regulation was amended by placing a quarantine on the Maritime Provinces, the European corn borer having been found in Nova Scotia and New Brunswick.

General Regulations, Section V. P.C. 557, March 12, 1930.

This section of the General Regulations was amended to the effect that all seed potatoes offered for sale must be certified. Provision was also made to certify a small sized grade.

FRUIT INSECT INVESTIGATIONS

In Nova Scotia, Quebec, Ontario and British Columbia, progress was made during the year, in life-history and control studies of insects affecting fruit trees. Reference to the more important insects studied during 1929 will be found under the chapter on "Field Laboratories."

INSECTICIDE INVESTIGATIONS

During 1929, work was continued on the development of a combined insecticide and fungicide spray, for fruit trees, more effective and at the same time less harmful than the spray materials used at present. This project, undertaken co-operatively with the Division of Botany, has been under investigation for several years, and involves extensive field experiments and extensive laboratory work both biological and chemical. Work with the aluminium sulphate mixture was continued. This mixture is now in extensive practical use. Conclusions of former years were corroborated, the mixture found to be an effective one with decided points of superiority over previous standard materials, but possessing some undesirable features. Very extensive experiments were conducted with the iron sulphate mixtures covering a wide range of formulae. From these, together with the work of previous years, very promising formulae were found.

Certain of these mixtures were very effective as insecticides and fungicides and were much safer to fruit and foliage than other standard materials. These mixtures are being tentatively recommended for experimental trial by growers. The iron sulphate mixture will be very satisfactory, provided that its effectiveness is corroborated in the future, as it is superior to the aluminium mixture in that there is no poisonous gas developed, no tendency to corrode the spray valves, and apparently no delayed "yellow leaf" effect. Some investigational work was done with calcium monosulphide combined with several insecticides, as a result of which this material is regarded as decidedly promising.

Further work was done with oil sprays, with particular reference to the European red mite. Several proprietary miscible oils gave poorer results than lubricating oils. Using a modern spray outfit quite satisfactory results were obtained by pouring the lubricating oil into the Bordeaux mixture with no attempt to make an emulsion. One particular oil was of distinct success in this connection. This corroborates results of the previous year and this method is being recommended.

Extensive tests were made with dipyrityls as a substitute for nicotine. These involved numerous field tests on various insects and considerable work in the insectary. The dipyrityls, which were in the form of sulphate, were, however, not very successful. Certain sulphonated oils were used for the purpose of increasing the effectiveness of contact insecticides, but with only indifferent success. Much work was done with pyrethrum and pyrethrum extracts, also derris and derris extracts, and with many proprietary materials, which, particularly the former, may lead to economic developments later.

As in recent years, an officer of the Division of Chemistry has been stationed at the Annapolis Royal laboratory during the summer months to assist in co-operative work on which chemical investigations are particularly necessary.

PARASITE INVESTIGATIONS

During the year the parasite work was established in permanent quarters at Belleville, Ont., with a view to the more efficient development and expansion of this important phase of insect control.

The major project of the laboratory continues to be the European Corn Borer and from European material received through the United States Corn Borer laboratory at Arlington, Mass., augmented by parasites bred at our laboratory, the following parasites were liberated at points in Ontario and Quebec: *Microgaster tibialis*, 8,123 individuals; *Eulimneria crassifemur*, 893 individuals; *Exeristes roborator*, 29,440 individuals, and *Microbracon bervicornis*, 207,000 individuals. Two imported species, *Macrocentrus gifuensis* and *Microgaster tibialis* were recovered from overwintered corn stalks at Chatham, Ont., in numbers sufficient to indicate their successful establishment at that place.

The parasite work against Oriental peach moth was developed on a much larger scale than in 1928. Liberations of *Trichogramma minutum* were greatly increased, reaching a total of 719,600 individuals, and the results produced were very encouraging, giving a parasitism of over 70 per cent of the eggs of the moth obtained in one orchard at the peak of the third generation. The larval parasite, *Macrocentrus ancylovora*, which is so important as a control factor in New Jersey, was imported from that district and colonized at two points in the Niagara district. The successful establishment of this parasite is indicated by the recovery of several hundred specimens from larvae of the peach moth collected during the fall.

Forest insect control also received more attention, with special emphasis upon the control of the larch sawfly. Sixty individuals of the parasite *Mesoleius tenthredinis* were liberated at North Bay, Ont., and recoveries indicate the successful establishment of this parasite at St. Williams, Ont., and Point Platon,

P.Q., as a result of previous liberations. Through the courtesy of the United States Gipsy Moth Laboratory at Melrose Highlands, Mass., 635 individuals of *Compsilura concinnata* were liberated near Vancouver, B.C., to aid in controlling the satin moth, which is now a very serious pest. Through the offices of the Imperial Bureau of Entomology we were able to liberate 1,153 individuals of *Blastothrix sericea*, a parasite of the Lecanium scale, in North Vancouver, B.C. Recoveries of the pine shoot moth parasites, *Orgilus obscurator* and *Cremastus interruptor*, were made at Hamilton, Ont., indicating their successful establishment in the district.

Other parasite introductions included the earwig parasite, *Digonochaeta setipennis*, received from England, and 190 adults were liberated at New Westminster, B.C. The transfer of *Aphelinus mali* from Ontario to British Columbia was also accomplished to aid in the control of the woolly apple aphid. Five hundred and sixteen individuals of this parasite were liberated in the Okanagan valley, and specimens were later recovered working on aphids.

Experiments are being continued in connection with the technique of breeding, storing, colonization and biology of the various species of parasites. Methods of shipping live insects are being thoroughly investigated, and this past year several species were carried across the continent with very little mortality, which greatly enlarges our field of possibilities.

MOSQUITO INVESTIGATIONS

Investigations relating to mosquitoes and their control were continued during 1929, and yielded results of scientific and practical interest of value to the public. Much data were collected regarding the life-histories, biology and distribution of these noxious insects in Canada, and the relation of river floods, rainfall and temperature to their seasonal occurrence and abundance. The effects of the blood-sucking habits of mosquitoes on live stock were also studied. Under the advice and direction of our officers, various organizations were encouraged to combat these pests with zest and increasing public support, and during 1929, as a result of the success of the organizations already in existence, the number of localities engaged in such efforts showed a decided increase. To meet the growing demand for information regarding these insects it has been necessary to publish a revised edition of Entomological Branch Circular No. 62, entitled "Mosquito Control in Canada."

HOUSEHOLD AND STORED PRODUCT INSECTS

Observations on various species of this important group of insects have been continued to augment the information already made available to the public in Department of Agriculture Bulletin No. 112—new series, published in June, 1929, under the title "Household Insects and Their Control." This publication was prepared to meet an urgent and increasing public demand for information regarding the identity, habits and methods of control of the various insect and other animal pests, including rats and other rodents, that frequently cause considerable annoyance to the occupants of dwellings and damage to their property. This publication is extremely well illustrated and contains chapters on the control of insects and other pests by the use of insecticides, fumigants and temperature; on such insects as house flies, bed bugs and fleas; on clothes moths and carpet beetles that damage clothing and furniture; on species that infest foodstuffs such as cockroaches, meal moths, larder beetles, ants, etc.; on pests of house plants; and on insects that occur in fruits and vegetables for the table.

INSECT PEST SURVEY

With the co-operation of entomologists in all parts of Canada, the Insect Pest Survey continued to make satisfactory progress during 1929. The reports from collaborators of the survey, dealing with insect outbreaks and occurrence, distribution and destructiveness of various species, together with the large volume of data accumulated from entomological literature since the survey was inception in 1922, have resulted in the creation of a record of insect pests, of considerable value to the cause of applied entomology in the Dominion. In 1929, volume 7 of the *Insect Pest Review* was issued at monthly intervals, during the growing season, to entomologists throughout Canada. Co-operation with the United States Insect Pest Survey, at Washington, was continued by the periodic exchange of summaries of current entomological conditions in the respective countries.

EXHIBITIONS

This part of the work of the Entomological Branch was quite in keeping with the high standard of previous years and the preparation and presentation of the various exhibits were of an order which was very creditable. While no increase was made in the number of exhibitions over that of 1928, those arranged for presented departures in construction, etc., which were very creditable.

As on former occasions, large and important assemblages were made at the Canadian National Exhibition at Toronto, at the Central Canada Exhibition at Ottawa, and at the Royal Winter Fair at Toronto. Besides these, prominent displays were made at London, Ont., Sherbrooke, P.Q., Regina, Sask., and at Vancouver, B.C., as well as at a number of the smaller provincial fairs both in Eastern and Western Canada.

At these exhibitions many of the more important insects that infest the farm, garden, orchard and home were on display. In some instances a special feature was made of fruit insects, while in others it was insects that affect vegetables or live stock.

It is both gratifying and encouraging to record that the public at large continue to show a sincere appreciation for these displays, and their general interest and response have been quite marked; in fact, it may be stated that the number of inquiries this year received from farmers, fruit growers and others has been increased considerably over that of any previous year. This would seem to indicate that these exhibitions are not only of educational value, but of real and practical benefit.

At all these events an officer of the Branch was in constant attendance to answer questions, offer advice and lend any assistance that was possible.

INDIAN ORCHARD WORK

During 1929, as in previous years, the Dominion Entomologist has co-operated with the Department of Indian Affairs, by directing the work of the Supervisor of Indian Orchards in British Columbia. The officer in charge of the work reports that each year a greater number of Indians, especially those resident in the interior, are taking a greater interest in the cultivation of fruits, both large and small. The Department of Indian Affairs are providing fruit trees, in certain sections, and during 1930 it is planned to set out some new orchards. During 1929 visits were paid to the various reservations and instructions given regarding pruning, control of pests, etc. Where necessary, spray pumps have been provided.

ADVISORY BOARD ON WILD LIFE PROTECTION

The Dominion Entomologist, representing the Department of Agriculture, attended meetings of the board held during the year. At these meetings import-

ant matters associated with the conservation of wild life are considered. Other Departments represented at these meetings are Indian Affairs, Interior, Mines, Fisheries and Mounted Police.

ADVISORY BOARD UNDER THE AGRICULTURAL PESTS CONTROL ACT

As in other years, the Dominion Entomologist, who is a member of this board, has had conferences with the officer in charge of the administration of the regulations under the Act, particularly with regard to insecticides offered for sale.

INTER-DEPARTMENTAL COMMITTEE ON AIR OPERATIONS

The Entomological Branch co-operated with the Civil Government Air Operations of the Dominion Air Service in conducting two extensive experiments in forest dusting for the control of insect outbreaks. One of these was conducted on a spruce budworm outbreak at Westree, Ont., and the other on a hemlock looper outbreak at the mouth of the Manicouagan river on the north shore of the gulf of St. Lawrence. In both of these operations the Air Service provided a Ford trimotor plane equipped for dusting, with the personnel and all plane supplies; the Entomological Branch provided the entomological staff and directed the experiment. Excellent results were obtained.

NATIONAL MUSEUM OF CANADA

In 1929, under the direction of the Dominion Entomologist, who is Honorary Curator of Entomology, National Museum of Canada, an interesting exhibit was brought together and placed on display, showing the silk worm of commerce in its various stages, as well as the raw silk and samples of material in various stages of process. During the year, conferences were held with the director of the museum regarding the preparation of permanent displays of insects and their work and it is expected that further exhibition material will be available in 1930.

FIELD LABORATORIES

ANNAPOLIS ROYAL, N.S.

The staff of this laboratory has been, as usual, concerned particularly with investigations of insecticides, but a study of some of the more prominent pests of the province was continued.

Extensive studies were made of the bionomics of three insects of the leaf-roller type. These were *Pandemis limitata* Rob., *Recurvaria nanella* Hb., and *Amorbia humerosana* Clem. The "leaf-rollers" as a class cause important injury to fruit trees. Experiments relating to the control of the gray-banded leaf-roller, *Eulia mariana*, were conducted. Fair results were obtained with spray applications of either lead arsenate or nicotine sulphate to the under surface of the foliage, at the time of the hatching of the eggs.

Extensive experiments were conducted against the European red mite with a view to obtaining the best control methods applicable to the prevailing local conditions. Lubricating oil sprays of a certain type, combined with Bordeaux mixture, were found effective, applied at the delayed dormant period.

Studies were continued of ovicides against the apple sucker, *Psylla mali* Schmidb. Further investigations relating to new control measures for the apple maggot were undertaken.

Spray and dust calendars were prepared in co-operation with other services; assistance was given in a "spray service," numerous lectures were delivered and articles prepared, and a comprehensive and attractive exhibit was displayed at several of the more important local fairs.

FREDERICTON, N.B.

Studies of the biology of eastern bark-beetles was continued and nine species were investigated. Information has been obtained regarding their life histories and habits, and the effect on development of moisture and sun. This has given a new understanding of the potential destructiveness of the species and the effectiveness of control methods in the protection of coniferous forests. Experiments on the damage done to the trees by defoliating insects such as larch sawfly and spruce budworm have been continued. Surveys of forested areas showed that the larch sawfly had practically disappeared, but the European beech scale continued to spread. A new budworm in the East, *Peronea variana*, was found to have attacked some two hundred square miles of spruce and balsam in Cape Breton. A potential outbreak of a bark borer in hemlock was found in Nova Scotia. These two insects will be investigated in 1930.

The life-history, abundance, and injury of the following insects were studied: the bronze cutworm, the black cutworm, the potato stem-borer, the European corn borer and certain other cutworms. Control experiments were carried out on the carrot rust fly, the seedcorn maggot, the zebra caterpillar and the bronze cutworm; 177 plots were treated with good results.

The bronze cutworm infestation was less intense but of greater extent than in 1928. The life history is now known and some of the natural control factors have been studied. The black cutworm infested about 1,000 acres of potatoes in York county and the loss was estimated at 27 bushels per acre. Experiments on the control of the carrot rust fly showed clearly the importance of early treatment in the spring. The European corn borer was found to have been eradicated, by clean-up methods, from the farms on which it was found in 1928. It was discovered, however, on five other farms this year.

Radio papers, farm circulars, technical papers and press notices were prepared, public and classroom addresses were given and circulars and bulletins distributed.

HEMMINGFORD, P.Q.

The work of this laboratory has been concerned chiefly with insects affecting fruit, field crops and shade trees. The studies of the round-headed apple-tree borer have been almost completed and have been partly published in Circular No. 73, issued by the Branch. The bionomics of the carpenter worm in maple have been studied and its control with calcium cyanide-raw linseed oil mixture demonstrated. The control of the cherry case-bearer on apple, with sodium polysulphide dusts and sprays did not give satisfactory results. Considerable publicity was given regarding the control of the apple maggot and the round-headed apple-tree borer. This resulted in much good. In collaboration with the Provincial authorities a spray service was operated, which resulted in a vast improvement in the quality of the apple crop. The study of the biology and control of white grubs progressed favourably during the year. The data on the habits of white grubs and their parasites have been materially added to, both in the field and in the laboratory. White grubs were abundant and the farmers were informed through the press as to the control practices to adopt. Other insects receiving attention were the European corn-borer, the lesser peach-tree borer and the poplar borer. Experiments with apple orchard sprays were undertaken and valuable data obtained. Through publications, lectures, fair exhibits and correspondence, farmers and fruit-growers have been assisted in controlling insect pests.

OTTAWA, ONT.

The field staff employed at the Ottawa laboratory continued the studies of control of the onion maggot and the tarnished plant bug. An investigation for the control of the cyclamen mite upon strawberries with particular regard

to preventing the distribution of the insect in establishing new plantations was incepted. The home made oil-emulsion spray for the control of the onion maggot continues to prove effective in reducing losses from this pest. The relationship between type of soil and the degree of infestation by this insect has been clearly demonstrated, and the utilization of this fact will be made in further studies to reduce the cost of control. No control for the tarnished plant bug has yet been found; much progress, however, has been made in other respects of the study of this problem. Valuable information upon the life-history and the rate and manner of distribution of the cyclamen mite has been secured, with promising progress towards a practicable control. The officers continue to keep in closest touch with the local vegetable growers, participating in their organized activities and maintaining a seasonably timed insect pest control information service by circular letters to the growers.

The Merivale laboratory directed from Ottawa was maintained during the summer and autumn of 1929. Valuable data were obtained regarding the conditions which govern the abundance of certain insects, particularly the maple leaf cutter. Here and at Ottawa, too, further information of value was obtained on a number of shade tree insect pests.

VINELAND STATION, ONT.

The Oriental peach moth investigation was continued during 1929. Life-history studies similar to those of 1928 were carried on under insectary and orchard conditions. Special attention was given to the mortality and habits of newly hatched larvæ, seasonal variations in type of injury to peaches, temperature requirements for egg laying, etc. Extensive small scale control experiments were conducted with spray materials with the object of determining what immediate and "residual" effects they had in preventing oviposition and in destroying the eggs and newly hatched larvæ. Control experiments were also carried on in badly infested orchards, but it is to be regretted that none of this work produced a satisfactory remedy. There was an increase in the infestation of peach moth, and, particularly east of St. Catharines, the insect was responsible for serious losses.

An investigation on leaf-rollers attacking the apple was initiated in Norfolk county, Ont., and good progress was made. Biological and control studies on the grape berry moth were also commenced at the Vineland Station laboratory. A partial life-history was worked out and some observations were made on the ecology of the insect.

Orchard experiments with oil and other sprays were conducted and the investigation of pyrethrum culture was continued. A very considerable amount of time was devoted to extension work, such as addressing fruit growers meetings, answering inquiries, visiting orchardists with special problems, publishing articles and assisting the Niagara Spray Service in an advisory capacity.

As usual, observations were made on insects of the season. Generally speaking, 1929 was not characterized by the appearance in severe outbreak form of many fruit insects. The only two species which caused serious concern among the fruit growers, were the green apple aphid and the Oriental peach moth.

STRATHROY, ONT.

The study of the control of field crop cutworms in southwestern Ontario as they affect mixed farming, particularly on sandy land, have been continued and definite progress can be reported. The direct relation between certain crop and cutworm abundance has been shown, and the importance of certain weeds as food plants for known species of cutworm moths demonstrated, knowledge of both of which will be utilized in future control work. Armyworms and Hessian fly have been kept under close observation in anticipation of possible out-

breaks, in order that advance information may be given to the farmers in time to avert crop damage. The preparation of excellent natural and wax exhibition mounts of insects and their damage continues to be a distinctive activity of this laboratory. These form a most useful and attractive part of departmental educational exhibits at important agricultural exhibitions and fairs.

CHATHAM, ONT.

Investigations for the control of the European corn borer and the Mexican bean beetle were continued by the officers of this laboratory as their chief study. However, an increasing amount of attention was given to studies of control of general field crop and vegetable insects, particularly those of tobacco. The European corn borer studies have clearly indicated that certain farm practices are the most efficient for use on the ordinary farm with the normal farm tools. Studies were also made to determine the importance of climatic and other factors in the normal abundance of the insect as bearing upon the margin of safety allowed by the present control program and the possibility of serious increase of infestation in a favourable year. This involves studies of winter mortality throughout the infested area and the normal summer mortality in relation to the weather at the point of greatest danger in the corn area. Further studies showed that Ontario conditions continue to seem unfavourable to the development of an injurious infestation of the Mexican corn beetle.

TREESBANK, MAN.

Field crop insect studies of the eastern prairies are carried on from this laboratory. Situated as it is on the margin of the prairies and set in the poplar bluff area makes it a particularly interesting centre for general studies. Studies, for identification purposes, of Canadian grasshoppers in their immature stages were continued and sixty-four species have now been reared and are recognizable in any stage. These should be of the greatest value in the next grasshopper outbreak. Studies of insects infesting native legumes and cruciferae (mustard) have been continued. These were undertaken owing to the increase of mixed farming on the prairies, with a view to determining in advance the potential importance of these insects as pests of botanically related farm crops.

Careful studies for the control of bertha armyworm were carried on during the year from which a method of protecting sweet clover by cultural practice was suggested.

The general insect situation in the province was surveyed so that advance information of probable outbreaks could be distributed to the threatened areas. The laboratory continues to increase as a centre of public interest and source of information, 1,174 visitors were recorded upon the laboratory registration book during the year.

SASKATOON, SASK.

Field crop insect problems of the central prairie area are studied from the Saskatoon laboratory and as the chief insects under investigation extend into the neighbouring provinces to some extent, the results of the work are applicable to a wide area outside of the Saskatchewan borders. The control of prairie wireworms and a study of the relation between crop rotation and abundance of injurious insects was given greatest attention. A special survey with a view to the control of mosquitoes in the Prince Albert National Park was made at the request of the Parks Branch of the Department of the Interior. Cutworms in general, the red-backed cutworm and the pale western cutworm in particular, bertha armyworm, wheat stem sawfly and grasshoppers were kept under careful observation and general study in order to anticipate possible outbreaks and to distribute warnings and control recommendations to local government officers and farmers in anticipation of trouble.

The wireworm studies were carried on in co-operation with the Experimental Farms Branch and local farmers by whom field scale tests were made of our recommendations. Both the wireworm control and crop rotation studies have progressed excellently and though final conclusions are impossible by the nature of the problems at so early a date in their prosecution, many most valuable results were secured indicating the progress of the study and their great value ultimately.

The closest co-operation was enjoyed with the University of Saskatchewan and the local Department of Agriculture. The co-operation with the Statistics Branch of the latter department makes possible a joint annual survey of the losses due to the major insects for the year which has proven of the very greatest interest and value to both organizations.

INDIAN HEAD, SASK.

The officers of this laboratory have continued their investigations of the insect injuries to native woodlands and plantations in the prairie region. Thorough investigations of the major insect infestations are in progress, and experiments are being conducted for determining the most efficient methods of control of the injurious species as they occur. Nurseries and plantations were inspected and numerous inquiries concerning the control of shade tree insects were dealt with.

LETHBRIDGE, ALTA

The far western prairie field crop insect problems of both irrigated and dry farming are carried on from the Lethbridge laboratory. A general study for the identification of cutworms from eggs was continued and this shows promise of being extremely useful. The annual study in co-operation with the Experimental Farms System, at Manyberries, with regard to the effect of grazing rotations, on prairie range, on insect abundance, particularly with reference to grasshopper outbreaks, was also continued. As minor studies, the status of such important insects as the pale western cutworm, the army cutworm and grasshoppers, was kept under close observation in order to forecast outbreaks and to anticipate loss by timely advice.

Excellent progress was made of the wheat stem sawfly control work which was considerably extended during the year. The value of trap crops and their practicability in the protection of the general wheat crop was clearly demonstrated on a field scale, and the increase of the efficiency of the natural parasites by certain simple cultural practices indicates that this may be a factor in reducing losses from this insect.

A destructive outbreak of bertha armyworm occurred upon certain areas where irrigation is practised. The crop damage from this outbreak, however, was reduced to a minimum by control activities following prompt organization of the growers.

VERNON, B.C.

The fruit insect investigations conducted from this laboratory related, as in 1928, to the life-history and control of the woolly aphis. As the control of this pest was of major importance no detailed studies of other fruit pests were made, although preliminary work was started in connection with the life-history and control of the oyster-shell scale. A great deal of work was done in connection with the control of the woolly aphis in relation to its spread of perennial canker of apple trees. Experiments were undertaken with soil treatments, trunk banding, canker paints, and winter and summer spraying for the control of this insect. Many of these showed great promise and will be further tested out in 1930.

On the whole the fruit crops of the province were singularly free from insect injury in 1929.

Grasshoppers increased throughout the Nicola and Chilcotin districts and did considerable damage and root maggot and wireworm injury was severe throughout the province.

The potato beetle work in the Kootenays continued successfully under the direction of the Provincial Department of Agriculture, this laboratory co-operating by making a survey of the situation in late summer and advising the provincial department as to the same and the amounts of poisoned dust necessary to continue the work in 1930.

The Forest Insect laboratory at Vernon during 1929-30 carried out a series of investigations on forest insect outbreaks, certain important forest insect surveys and biological studies of important forest insects. The yellow pine area was still free from bark-beetle outbreaks, except on one small section where a small amount of control work will be required in 1930.

Investigations on the spruce budworm were carried out on Vancouver island and near Barkerville in the Caribou district.

An investigation of a hemlock looper outbreak was conducted at Wigwam Inn and near Vancouver. At Wigwam Inn an airplane dusting operation was conducted in co-operation with the Provincial Forest Service with complete success.

A general forest insect reconnaissance was made of Stanley park, the Vancouver watershed, and Howe sound. The black-headed tip moth and the hemlock looper are becoming abundant in that area.

The survey of the eastern Rockies was continued, this being the third year that this work has been conducted. No extensive epidemics of forest insects have been discovered thus far in that area. This survey will be continued during the summer of 1930 north of the Canadian National Railway and including the Jasper park region.

A hemlock looper outbreak in Stanley park was investigated and recommendations made for airplane dusting control in 1930.

At the request of the National Research Council an intensive study of reported damage by smelter fumes was made on the Columbia river, below Trail, and situated in the northern part of Stephens county, Washington state.

A series of biologic studies of forest insects of the coast region was carried out in our field station at Pender harbour.

A branch sub-laboratory in Vancouver is conducted in co-operation with the Forest Products Laboratory of the Dominion Department of the Interior. Various forest insect investigations in the coastal region are conducted from this laboratory.

Our officers made the usual inspections of reported infestations and recommended action where necessary.

Correspondence with timber owners and the general public with reference to forest insect injuries is constantly increasing.

KAMLOOPS, B.C.

During 1929 very satisfactory progress can be reported on all projects and investigations undertaken. In connection with one or our two major projects—a study of the tick population of British Columbia, with especial reference to disease transmission by *Dermacentor venustus*—much information was obtained, both as to the rodent hosts of ticks, the ticks themselves and cases of tick paralysis in man and sheep.

Valuable data were secured in our other major project—investigations with a view to eliminating the warble fly pest from the main dairy districts of the province. The losses occasioned by warble flies were investigated, both in the

Lower Fraser valley and interior points, and statistics were compiled dealing with these. Some 520 animals were critically examined. In the former district 56 per cent were infested in February and in the latter 71 per cent in March. The total loss in the province through warble fly damage was calculated to be in excess of one quarter of a million dollars annually. An extensive survey was conducted early in 1930, with the co-operation of the leading dairymen in the province to ascertain the earliest appearance of grubs in different districts, since this point is of vital importance in outlining control measures.

A serious and rather unusual outbreak of sheep wool maggots in flocks in the Dry Belt was investigated. In some cases owners of small bands of several hundred head lost as many as fifty lambs. Suitable measures of control were brought to the attention of flock owners through personal visits and press notices.

A survey was taken to ascertain the main poultry parasites occurring in the province and valuable data were accumulated as to these pests and the measures in use to combat them.

Studies of the black flies of British Columbia were continued and the information secured in 1928 was considerably augmented.

When time could be spared from other investigations, attention was given to mosquito surveys requested in connection with various control projects. Mosquito control work undertaken by the Kamloops city authorities was supervised and almost 100 per cent control was realized. Assistance was given to the Kelowna and other mosquito control leagues and about half a dozen surveys were conducted.

Exhibits illustrating the control of live stock insects were shown at the six most important exhibitions and fairs in the province and a considerable amount of lecturing and other extension work was undertaken.

AGASSIZ, B.C.

Two control campaigns against the European earwig were planned and supervised in 1929, one in Vancouver and one in Ioco. In New Westminster a further study was made of certain phases of the bionomics of this insect. Much valuable data was collected bearing on more efficient control measures.

Efforts towards the natural control of this insect and of the Lecanium scale were continued by the liberation of parasitic flies received from the Belleville laboratory.

Experiments with copper sulphate dust to control slugs were made, and promising results obtained from the small number of tests possible.

The collection of data regarding the wheat midge was commenced this season with a view of determining the correct data for sowing to avoid this pest. These data are being correlated with phenological phenomena to avoid seasonal variations.

An extensive survey to determine the present area of infestation of the European satin moth was directed from this laboratory in 1929. The two scouts employed in this work located a considerable extension of the known area of infestation. The natural control of this insect was also commenced this year by the establishment of a colony of parasitic flies in the Lower Fraser valley. These flies were sent from the Belleville laboratory.

Mosquito control work was supervised again at Harrison Hot Springs, with excellent results. Observations on injury to nursery stock by the tarnished plant bug were made at Sumas, B.C., and preliminary observations and experiments in control of the raspberry *Byturus*, first reported as a pest of loganberries in 1928, were conducted at Sardis, B.C.

The Parks Board of Vancouver were advised and assisted with control work against the Lecanium scale and other insect pests on the park and boulevard trees in that city.

VICTORIA, B.C.

The investigation on the cherry fruit worm was practically completed this season and a satisfactory method of control discovered. A light petroleum oil emulsion combined with nicotine sulphate was found to give very satisfactory control, the infestation on sprayed trees being 2.36 per cent as compared to 19 per cent on the checks. Points in the life-history not covered by last year's investigations were cleared up this season.

A study of the holly leaf miner, which seriously disfigures holly trees and injures foliage intended for export, was commenced this season and satisfactory progress made in the study. A method of control by dusting with lime-nicotine dust was found to destroy practically 100 per cent of the adult flies, and further investigations along this line will be made during the coming season.

The control of earwigs in the city of Victoria and neighbouring municipalities was supervised by our officers. The original infestations have been kept well within bounds by the poisoning operations carried on from year to year, and while fresh infestations continue to be reported, these are occasioned by the accidental introduction of earwigs from outside points.

The new raisin-shorts bait for strawberry root weevil which was devised at this laboratory has proved a complete success and is well reported on by growers in this district and in Washington state.

A method for control of flea beetles which infest cruciferous crops was discovered this season and may be used as an alternative to the nicotine dust method previously advocated. This is by means of a light petroleum emulsion spray combined with nicotine sulphate. This insecticide gave good control and further trials are to be made during the coming season.

The exhibits of the Entomological Branch at the fall fairs at Vancouver and Victoria attracted considerable attention and interest. The officers at this laboratory continue to co-operate closely with the provincial Department of Agriculture.

PUBLICATIONS

The following publications were issued by the Entomological Branch during the fiscal year ended March 31, 1930:—

Circulars

- 44. "The Rose Chafer"—by W. A. Ross and J. A. Hall. (Revised edition.)
- 62. "Mosquito Control in Canada"—by Eric Hearle and C. R. Twinn. (Revised edition.)
- 73. "The Round-headed Apple-tree Borer and its Control"—by C. E. Petch.

Pamphlets

- 50. "The Satin Moth in British Columbia"—by R. Glendenning. (Revised edition.)
- 71. "The Pale Western Cutworm"—by H. L. Seamans. (Reprinted.)

Bulletin

- 112. "Household Insects and Their Control"—by Arthur Gibson and C. R. Twinn.

In addition to the above, officers of the Entomological Branch have contributed important papers to technical journals as well as to agricultural, horticultural, and other publications.

THE FRUIT BRANCH

The commercial apple crop for 1929 is estimated at 3,939,915 barrels. As compared with 3,235,970 barrels in 1928 or 124 per cent of the five-year average.

COMMERCIAL PRODUCTION OF APPLES BY PROVINCES

—	Nova Scotia	New Brunswick	Quebec	Ontario	British Columbia	Canada
	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels
1925.....	956,060	40,000	70,900	950,140	932,673	2,949,767
1926.....	927,370	30,000	111,000	573,600	1,311,800	2,954,370
1927.....	925,000	28,000	104,600	673,500	1,079,500	2,810,600
1928.....	1,089,000	22,000	105,950	561,300	1,457,720	3,235,970
1929.....	1,737,846	35,000	187,180	878,502	1,101,357	3,939,915
5-year Average 1925-1929...	1,127,055	31,000	115,926	727,408	1,176,610	3,174,124

APPLE EXPORTS FOR SEASONS 1925-1930

—	Barrels	Boxes
1925-1926.....	1,156,064	628,144
1926-1927.....	688,270	805,190
1927-1928.....	654,478	568,340
1928-1929.....	721,656	899,490
1929-1930.....	1,496,821	668,717

SMALL AND TENDER FRUIT PRODUCTION, 1927-28-29

—	1927	1928	1929
	bush.	bush.	bush.
Cherries.....	216,800	271,250	253,799
Peaches.....	347,580	605,770	672,541
Pears.....	332,200	255,430	348,688
Plums and prunes.....	263,200	480,010	285,460
	qts.	qts.	qts.
Raspberries.....	5,232,700	4,306,860	5,021,424
Strawberries.....	10,946,200	11,364,740	14,415,344
Other berries.....	3,737,000	3,324,340	4,603,703

POTATO PRODUCTION

The total potato production for Canada in 1929, amounted to 39,930,000 cwt., as compared with 50,195,000 cwt. in 1928

The following shows the acreage and yield by provinces for 1929:—

—	Area	Total yield	Merchant- able yield
	acres	cwt.	cwt.
Prince Edward Island.....	42,500	3,820,000	3,209,000
Nova Scotia.....	30,783	2,872,000	2,441,000
New Brunswick.....	45,215	4,646,000	4,042,000
Quebec.....	162,411	15,429,000	12,497,000
Ontario.....	148,435	8,484,000	7,042,000
Manitoba.....	30,436	1,161,000	1,033,000
Saskatchewan.....	41,637	1,149,000	919,000
Alberta.....	27,822	1,022,000	858,000
British Columbia.....	14,488	1,347,000	1,145,000
Canada.....	543,727	39,930,000	33,186,000

ONION PRODUCTION

The total onion production for Canada last year amounted to 29,530 tons as compared with 23,273 tons in 1928.

The following table shows the acreage, yield per acre, and total yield by provinces for 1929:—

	Area	Yield per acre	Total yield
	acres	tons	tons
Quebec.....	495	5.0	2,475
Ontario.....	1,383	10.53	14,565
British Columbia.....	1,393	8.96	12,490
Canada.....	3,271	9.03	29,530

INSPECTION OF FRUITS AND VEGETABLES

The work of the Fruit Branch in connection with the administration of the Fruit Act and Root Vegetables Act has shown considerable expansion over previous years. A new feature has been the administration of the Potato Export Regulations included in the Root Vegetables Act revised 1929, and this work has entailed a considerable increase in the inspection staff in the provinces of New Brunswick and Prince Edward Island to which the export regulations applied. The inspection of fruit and vegetable packages has been an important duty and factories or plants manufacturing containers have been systematically examined.

Inspections under the Fruit Export Regulations show an increase of 10 per cent over last year, but the requested inspection service shows a reduction of approximately 5 per cent, caused by the transfer of a large number of inspections of potatoes under the Export Regulations to the Administrative Service. A great expansion in the inspection of fruits and vegetables generally has taken place and the total number of inspection certificates issued is approximately 26 per cent in excess of the previous year.

The following table shows the number and kind of inspections made, by provinces, during the fiscal year ending March 31, 1930:—

Province	Grading and marking regulations	Fruit export regulations	Potato export regulations	Standard package regulations	Requested inspection service	Total inspections
British Columbia.....	6,354	1,285		47	6,236	13,922
Prairie Provinces.....	904				394	1,298
Western Ontario.....	5,495	317		92	2,812	8,716
Eastern Ontario and Quebec	2,333	423		52	1,450	4,258
Nova Scotia.....	3,141			655	1,032	4,828
New Brunswick.....	269	4	7,080	12	13	7,378
Prince Edward Island.....	5		5,398			5,403
Total.....	18,501	2,029	12,478	858	11,937	45,803

The total number of inspections made during the year under review as compared with the two previous years is shown in the following table:—

Inspection	1927-28	1928-29	1929-30
Administration.....	19,140	23,570	33,866
Requested Inspection Service.....	12,603	12,546	11,937
Total.....	31,643	36,116	45,803

THE FRUIT ACT

The following table shows the number of packages of various kinds of fruits inspected during the year ending March 31, 1930. The number of packages examined shows an increase of 28 per cent over the previous year:—

Product		Number of packages in lot	Number of packages inspected	Bulk
Apples.....	barrels	661,034	72,379	
Apples.....	boxes	2,781,113	159,156	
Apples.....	baskets	139,412	17,430	
Apples.....	bulk			194
Peaches.....	baskets, etc.	210,912	14,964	
Pears.....	barrels	486	94	
Pears.....	baskets, etc.	128,814	9,642	
Plums.....	"	155,817	10,440	
Tomatoes.....	"	174,868	24,198	
Small fruits.....	"	487,336	57,579	
Grapes.....	"	277,123	21,353	
Miscellaneous fruits.....	"	545	545	
Mixed fruit and vegetables.....	packages	2,834,218	188,331	
Frozen raspberries.....	barrels	491	53	
Total.....		7,852,169	576,164	194

The number of violations reported under the Fruit Act and the number of convictions as compared with 1928-29 are as follows:—

Year	Number of violations	Number of convictions	
		Domestic fruit	Imported fruit
1928-29.....	1,527	43	8
1929-30.....	1,355	21	1

FRUIT EXPORT REGULATIONS

Under these regulations all apples, pears and plums intended for export, except to the United States, are required to be inspected before shipment and a certificate issued stating the grade and condition of the product. As in previous years these regulations did not apply to fruit exported from Nova Scotia.

At the commencement of the season a reduction in the inspection fee from \$5 to \$3 per carload was made and this reduction accounts for a loss in revenue of 18.5 per cent, while the number of inspections increased 10 per cent as compared with last year.

The following table shows the number of export certificates and release permits issued, and the revenue collected, by provinces, for the year under review:—

Province	Export certificates	Release permits	Revenue
			\$
British Columbia.....	1,285	60	3,807 50
Western Ontario.....	317	293	1,329 80
Eastern Ontario and Quebec.....	423	5	1,670 00
New Brunswick.....	4		10 60
Total.....	2,029	358	6,817 90

The total number of certificates and permits issued and revenue received as compared with the two previous years are as follows:—

Year	Export certificates	Release permits	Revenue
			\$
1927-28.....	1,510	689	6,890 40
1928-29.....	1,827	106	8,393 45
1929-30.....	2,029	358	6,817 90

STANDARD PACKAGE REGULATIONS

Under these regulations factories and plants manufacturing barrels, boxes, baskets, crates, berry boxes and other fruit and vegetable containers were systematically inspected and the following table shows the number of inspections made as compared with the two previous seasons:—

	1927-28	1928-29	1929-30
Inspections.....	943	1,109	858

ROOT VEGETABLES ACT

Considerable expansion has taken place in the inspection of vegetables. At the request of the potato industry in New Brunswick and Prince Edward Island regulations concerning compulsory inspection of all carlots and cargoes of potatoes exported from these provinces were included in the Root Vegetables Act amended 1929. The amended Act also included grades for table turnips and celery and these products were inspected for administrative purposes. During the season a demand arose for the inspection of table turnips at shipping point and a great many cars, mostly intended for export, were shipped under Government inspection. There was also a marked improvement in the quality of table stock potatoes from certain areas in Quebec and Ontario.

The following table shows the number of packages of various vegetables inspected during the year ending March 31, 1930, which is an increase of 66 per cent over the previous year:—

Product	Number of packages in lot	Number of packages inspected	Bulk
Potatoes..... bags	4,313,937	278,380	.....
Potatoes..... 15 lb. bags	298,750	12,589	.....
Potatoes..... barrels	153,534	21,944	.....
Potatoes..... bulk	.....	.....	4,095
Sweet potatoes..... hampers	569	80	.....
Sweet potatoes..... barrels	926	67	.....
Onions in bags.....	436,533	23,503	.....
Onions in crates.....	16,803	2,352	.....
Miscellaneous vegetables.....	1,425	1,425	.....
Total.....	5,222,377	340,340	4,095

The number of violations reported under this Act and the number of convictions during the year, as compared with the previous year, are as follows:—

Year	Number of violations	Convictions
1928-29.....	429	7
1929-30.....	531	7

POTATO EXPORT REGULATIONS

These regulations were put into effect at the beginning of the 1929 shipping season and applied only to the provinces of New Brunswick and Prince Edward Island. In accordance therewith all carloads and cargoes of potatoes originating in these provinces and intended for shipment to points outside the respective provinces were inspected prior to shipment and certificates issued stating the grade and condition. In instances where it was found impracticable to inspect a shipment destined to a domestic market it was permitted to move under release permit, but arrangements were made to inspect the shipment at destination. For this service a fee of \$3 per carload was levied and the number of inspection certificates and release permits issued and revenue collected were as follows:—

Province	Inspection certificates	Release permits	Revenue
			\$
New Brunswick.....	7,080	16	22,180 00
Prince Edward Island.....	5,398	8	16,194 00
Total.....	12,478	24	38,374 00

REQUESTED INSPECTION SERVICE

This service has maintained its important position in the fruit and vegetable industry and may be now considered a permanent factor, but while the use of this service is optional on the part of the industry, it has evolved, as in Prince Edward Island and New Brunswick, into a compulsory service for potatoes and turnips by regulation, on request of growers and shippers, while in British Columbia a voluntary request for the inspection of all carloads of fruits and vegetables originating in the province was received prior to the commencement of the shipping season. In Nova Scotia, Quebec, and Ontario, marketing fruits and vegetables under a certificate of quality is also increasing. This service has also been extensively used with respect to imported products and a very wide range in commodities have been inspected on request.

With respect to the inspection fee, any district or province requesting the inspection at shipping point of 90 per cent or more of its entire carlot movement was granted a reduction from \$5 to \$3 per carload.

Where the request for inspection covered the entire carlot movement, provision was made to permit cars found impracticable to inspect, to move under release permit in order not to interfere with the normal movement to market.

The total number of certificates and permits issued and the revenue collected under this service, by provinces, during the year ending March 31, 1930, are as follows:—

Inspection District	Inspection certificates	Release permits	Revenue
			\$
British Columbia.....	6,236	29	18,861 17
Prairie Provinces.....	394		1,686 00
Western Ontario.....	2,812		9,719 00
Eastern Ontario and Quebec.....	1,450		6,674 00
Nova Scotia.....	1,032		2,552 50
New Brunswick.....	13		65 00
Prince Edward Island.....			
Total.....	11,937	29	39,557 67

The following table shows the number of requested inspection certificates issued by provinces as compared with the two previous years:—

Inspection District	1927-28	1928-29	1929-30
British Columbia.....	4,475	1,835	6,236
Prairie Provinces.....	614	412	394
Western Ontario.....	1,002	1,581	2,812
Eastern Ontario and Quebec.....	706	839	1,450
New Brunswick.....	3,086	4,407	13*
Prince Edward Island.....	2,568	3,019	*
Nova Scotia.....	152	453	1,032
Total.....	12,603	12,546	11,937

* See Potato Export Regulations.

In the administration of the Fruit Act and Root Vegetables Act, inspections made under the fruit and potato export regulations are revenue bearing. Revenue also is obtained from inspections under the requested inspection service, a service purely optional on the part of the industry. Total revenue received during the year as compared with previous years is as follows:—

REVENUE BEARING INSPECTIONS

Year	Requested inspections	Fruit export regulations	Potato export regulations	Total inspections	Total revenue
					\$
1924-25.....	2,839			2,839	14,190 00
1925-26.....	4,060			4,060	19,819 50
1926-27.....	9,044			9,044	43,471 00
1927-28.....	12,603	2,199		14,802	68,339 40
1928-29.....	12,546	1,933		14,479	65,852 95
1929-30.....	11,937	2,029	12,478	26,444	86,242 07

ONION STORAGE WAREHOUSE

The demonstration frost-proof storage warehouse provided by the Department and operated by this Branch, at Leamington, Ont., during the seasons of 1926-27, 1927-28 and 1928-29, proved of so great value in facilitating the proper marketing of the onion crop of that district, that the co-operative organization undertook to operate the warehouse under lease during the season of 1929-30, and it was again patronized to full capacity.

The use of this warehouse has enabled the growers, through the co-operative organization, to develop a more orderly marketing condition. The onions are placed in crates and go into storage in October, the period of distribution being from February to May, with a minimum of shrinkage.

NOTES

In accordance with recommendations made by the industry, changes were made in the Fruit Act as follows:—

P.C. 731 of May 1, 1929, authorized the use of a registered number to indicate the importer under the Imported Fruit Regulations.

P.C. 771 of May 8, 1929, provided slight changes in the dimensions of the tomato lug and six-basket crate, and standardized the two-quart basket, a three-basket container and the twenty-quart field or orchard basket.

P.C. 1158 of July 2, 1929, provided some changes in regard to tomato grades and ungraded fruit in baskets.

A. Fulton, B.S.A., Chief of the Markets Extension Division, resigned during the summer to accept a position as Commercial Representative for the Ontario Fruit Growers' Association in Great Britain. This position was filled by the promotion of Mr. W. B. Gornall, formerly employed as Assistant to the Fruit Commissioner.

There has been an increasing demand by the growers and distributors for standards of quality for various kinds of fruit and vegetables. Educational work along this line was undertaken by issuing branch recommended grades for strawberries and apricots, also for cabbage and cauliflower. This has proven very successful and will undoubtedly result in a consumer demand which will eventually require established grades by legislation.

Educational work in respect to blueberry marketing was continued in the province of Quebec; also in the marketing of long-haul shipments of green peas under refrigeration, in which there has been a marked growth of interest.

Officers of the Branch attended and addressed various provincial and local fruit and vegetable growers' meetings, and in several instances acted as judges at fairs and exhibitions.

MARKETS DIVISION

The final estimates for the 1929 Canadian fruit crop indicate a shipping point value of \$19,767,935, and compares very favourably with the final estimate for 1928, \$19,824,333, a reduction of \$56,398, or less than half of one per cent. Nova Scotia and Quebec experienced about the largest apple crops on record, Ontario and New Brunswick had the largest yields in years, while the British Columbia apple crop showed a decrease of 24 per cent from the yield of the year previous. While boxed apples brought good returns, Eastern Canada, shipping largely in barrels, suffered greatly through world conditions. The crop in England was double that of the year previous, while Continental European producing sections had yields much larger than normal, which resulted in a very draggy European market throughout the season with low price levels prevailing. The condition of the European markets had a corresponding effect on our domestic markets. The quality of the apple crop was not of the best, with the result that growers and shippers experienced a bad year. As an example, Nova Scotia had the heaviest commercial crop in recent years, 1,737,846 barrels, and received the lowest average shipping point returns on record. Pears, peaches, strawberries, raspberries, and other berries were produced in greater abundance than in 1928, while plums and prunes, apricots, cherries, and grapes returned lighter yields. Cherries and grapes obtained approximately the same average returns as the year before, while all other tender fruits sold at slightly higher levels.

The following table is a final estimate of production and shipping point value of fruits in 1929, as compared with 1928:—

	Year	Total quantity	Average price	Total value
		brl.	\$	\$
Apples.....	1928	3,235,970	3.49	11,297,867
	1929	3,939,915	2.70	10,637,770
Pears.....	1928	255,430	1.85	473,246
	1929	348,688	1.88	654,501
Plums and prunes.....	1928	480,010	1.28	615,890
	1929	285,460	2.05	584,261
Peaches.....	1928	605,770	1.98	1,200,345
	1929	672,541	2.51	1,684,746
Apricots.....	1928	36,210	2.48	89,800
	1929	33,341	3.47	115,693
Cherries.....	1928	271,250	3.08	836,137
	1929	253,799	3.38	856,912
Strawberries.....	1928	11,364,740	0.13	1,426,990
	1929	14,415,344	0.12	1,796,528
Raspberries.....	1928	4,306,860	0.17	728,641
	1929	5,021,424	0.18	886,620
Other berries.....	1928	3,324,340	0.12	390,617
	1929	4,603,703	0.12	533,864
Grapes.....	1928	69,120,000	0.04	2,764,800
	1929	50,426,000	0.04	2,017,040
Total value.....	1928			19,824,333
	1929			19,767,935

VEGETABLES

The potato crop returned a yield considerably under that of the year previous, the final estimate being 39,930,000 cwt. as compared with 50,195,000 cwt. in 1928. All provinces, with the exception of Quebec, reported a much lower yield. This condition was most noticeable in the Prairie Provinces where, as a result of extremely dry weather conditions, the crop was under 50 per cent that of 1928. The Quebec yield was 18 per cent in excess of that of 1928, and comprised 38.6 per cent of the total Canadian crop. The following table indicates the 1929 acreage and production for Canada, and by provinces, as compared with 1928:—

	Year	Acreage	Production
			cwt.
Canada.....	1928	599,063	50,195,000
	1929	543,727	39,930,000
Prince Edward Island.....	1928	51,890	5,708,000
	1929	42,500	3,820,000
Nova Scotia.....	1928	30,685	3,280,000
	1929	30,783	2,872,000
New Brunswick.....	1928	52,239	6,776,000
	1929	45,215	4,646,000
Quebec.....	1928	164,000	13,071,000
	1929	162,411	15,429,000
Ontario.....	1928	181,241	11,875,000
	1929	148,435	8,484,000
Manitoba.....	1928	31,054	2,585,000
	1929	30,436	1,161,000
Saskatchewan.....	1928	42,800	3,052,000
	1929	41,637	1,149,000
Alberta.....	1928	28,366	2,220,000
	1929	27,822	1,022,000
British Columbia.....	1928	16,788	1,628,000
	1929	14,488	1,347,000

Marketing conditions were quite favourable, particularly as the season advanced, quotations being very much higher than the year before. Maritime growers received for Canada No. 1 grade, delivered at warehouse or siding, \$1.75 to \$3 per barrel of 165 pounds, mostly \$2.25 to \$2.50. During the past season cars rolled from the Maritimes and Quebec in comparatively large numbers to the Prairies and a few cars were shipped as far as the Pacific coast. Exports to the United States were comparatively heavy during the winter and spring months.

Onion production amounted to 29,530 tons as compared with 23,273 tons in 1928, an increase of 26.9 per cent. Resulting from plentiful supplies, onion prices throughout the season were poor to fair.

EXPORTS

Apple exports show a large increase during the 1929-30 shipping season as compared with the 1928-29 season; 1,727,089 barrels were exported during the season just over, while 1,021,490 barrels were exported the year before. This is an increase of 69 per cent. The following table shows the apple exports by provinces for the last two seasons:—

Province	1928-29	1929-30	Per cent
	barrels	barrels	
Nova Scotia.....	680,840	1,396,251	205
Ontario.....	42,200	103,379	245
	boxes	boxes	
British Columbia.....	895,350	682,378	76
Total in barrels.....	1,021,490	1,727,089	169

It will be observed from the above table that Nova Scotia exports increased 205 per cent and Ontario 245 per cent, while British Columbia showed a decrease of 24 per cent. While exports showed a very large increase over the year before, returns were very disappointing. English and European crops were much heavier than in 1928, which lessened the demand for apples from this continent. The Nova Scotia crop was exceptionally large but of indifferent quality, and some English markets, notably Cardiff, were constantly flooded with exports from the Annapolis Valley.

EXTENSION OF FOREIGN MARKETS

CERTIFIED SEED POTATOES

In co-operation with the Botany Division and Trade Commissioners of the Department of Trade and Commerce, considerable work was done with a view to establishing Canadian certified seed potatoes on foreign markets. Several small shipments were made between September and December, which were assembled in Montreal and Saint John, N.B., and which consisted of Green Mountain, Irish Cobbler, Spaulding Rose, Bliss Triumph, Dooley, Early Rose and Burbank varieties. Efforts were made to include in these shipments, seed from the various provinces producing certified stock, but it is felt that in the event of good results obtaining from these shipments, that it will be necessary to confine further developments to those provinces which are best able to care for this market. In addition to the above, a shipment of Burbanks was made direct from British Columbia. Unfortunately, direct shipment from the West coast takes forty to 45 days, and it would appear to be doubtful if any substantial business could be built up with British Columbia, although the Burbank is seemingly most suited to the demands of the Argentine trade. Efforts are presently being made to introduce Canadian certified seed potatoes into other South American countries, and to the East Indies.

APPLES

A small test shipment of apples, comprising four boxes each of Newtown, Winesap, Jonathan, and Grimes Golden, financed by the Fruit Branch was sent to Shanghai, China, in co-operation with the Trade Commissioner at that place, to find out how Canadian apples would be received on that market. Co-operating with enterprising shippers, barrelled apple shipments to the Argentine, and boxed apple shipments to the Netherland East Indies were made.

APPLE SLACKS

Experimental Shipments of Nova Scotia Barrelled Apples

Early in 1928 three experimental consignments of Nova Scotia Stark apples were shipped to Liverpool by the Fruit Branch, with the object of comparing four methods of packing barrels for long distance delivery with the least possible loss from slackness. It was felt, however, that a more satisfactory comparison might be obtained by employing certain varieties which appeared from an analysis to be particularly susceptible to slackness. Accordingly a scheme for a second experiment was drawn up, and, in co-operation with the National Research Council and the province of Nova Scotia, a further series of shipments was made in the autumn of 1928, with Gravenstein, Golden Russet and Blenheim Orange—150 barrels in each shipment of each variety, varying the method of packing, and shipping at the same time as controls 50 barrels of each variety packed under regular packing house methods.

In the fall of 1929 further investigations were carried out on certain factors which appeared to have a bearing on the condition of pack at destination. The experiment was limited to Gravenstein, Golden Russet and Blenheim Orange—60 barrels for each variety and sub-divided into six lots of ten barrels each, under different methods of packing and at different periods of shipping for each variety, the first shipment of Gravensteins leaving Halifax for Liverpool on September 17.

Arrangements were made to have all the experimental barrels carefully inspected before shipment, and again on arrival in England.

Information was compiled on the loss and weight of different varieties from packing until arrival in England, namely, the percentages of slacks found, the percentages of slacks in regular shipments from the various packing houses, the satisfaction given by the different makes of barrels, and other information likely to be of use in solving this problem.

MARKET NEWS

The Markets Extension Division during the fiscal year ended March 31, 1930, disseminated crop and market information of interest to growers and dealers through the medium of crop reports and market bulletins. The crop reports dealt with estimated production and condition of leading commercial fruits and vegetables and were issued monthly, June to October inclusive, with a special potato crop review issued in January. In the spring of 1929 it was decided to revise the form of the market bulletin. The bulletin as published did not allow a ready comparison between commodities on the various markets and it was felt that if the report was by commodities showing price range on the principal markets it would be of more value to the industry, and to that end the Canadian Fruit and Vegetable Market Bulletin was devised and published, the first issue being distributed on Friday, August 9. From the favourable comments that have been received from all sections of the country it is evident that the change in form of this publication has met with the approval of the entire industry.

PUBLICITY

The Markets Extension Division has during the past years prepared information suitable for broadcasting, which reports have been broadcast over the Eastern Chain of the C.N. Radio Stations. Three broadcast speeches over the Fredericton, N.B., Station, were made under the direction of this Division. Late in the year in co-operation with the Publications Branch, arrangements were made whereby every Friday an article dealing with crops or markets is prepared and released through the Canadian press.

Exhibition work was carried on during the past year. Exhibits were placed at all the Class A Fairs in the Prairie Provinces, including Brandon, Calgary, Edmonton, Saskatoon and Regina; at the Canadian National Exhibition and Royal Winter Fair, Toronto, and at the Central Canada Exhibition, Ottawa. In view of the fact that the Fruit Branch has taken over the work of administering the Meat and Canned Foods Act as it applies to fruits and vegetables, the canning phase of the industry was emphasized in each of these exhibits. An exhibit was also placed at the Imperial Fruit Show at Birmingham, England, supervised by the Canadian Fruit Trade Commissioner in co-operation with the Empire Marketing Board. A display was staged of the principal varieties of apples from the main producing provinces. Apples were also purchased for free distribution to visitors at the show, the Empire Marketing Board providing an appropriation to meet the expenses incurred in this distribution.

The educational film "Growing and Marketing Canadian Apples" has been loaned to various fruit-growing and co-operative societies for showing at members' meetings.

The lecturer and demonstrator has attended various exhibitions and given demonstrations in canning, has lectured and demonstrated at women's meetings, and in short courses in home economics and has written three bulletins "Home Canning," "Commercially Canned Products," and "The Cooking of Vegetables." The Demonstrator's work during the year has emphasized the variety and quality of canned products, and has covered six provinces. A result of the work in this connection is that it has been shown that women desire and need authentic information regarding all phases of the use of fruits and vegetables in the home.

CANNING DIVISION

The inspectors of this Division visit, from time to time, the canning and jam factories and apple evaporators operating under permit from this Branch, also the wholesale warehouses and various customs points where import shipments of canned fruits and vegetables and their products are presented for entry into Canada.

In 1929 there were 414 plants operating under permit from this Branch whose products entered into interprovincial or export trade. Of these, 262 are canning factories, 71 are jam factories and 78 are apple evaporators or dehydrators.

The following shows the distribution of the plants for the year ending March 31, 1930, compared with those in operation during the year ending March 31, 1929:—

	1929-30	1928-29
Prince Edward Island.....	4	4
Nova Scotia.....	27	27
New Brunswick.....	10	11
Quebec.....	49	36
Ontario.....	271	249
Manitoba.....	7	7
Saskatchewan.....	1	.....
Alberta.....	2	3
British Columbia.....	43	43
Total.....	414	380

The twelve canning inspectors, assisted by various Fruit Inspectors, made 3,300 visits to these plants during the year 1929.

Two thousand four hundred certificates were issued covering products from which 694 samples were taken, including shipments of the following:—

	cases
Tomatoes.....	477,000
Tomato products.....	477,842
Peas.....	22,100
Corn.....	11,410
Pears.....	64,700
Evaporated and dehydrated apples.....	40,830

During the past year over 2,000 samples of canned fruits and vegetables were inspected and graded by the inspectors at the various plants, and 3,000 samples were submitted to head office for check-grading.

Inspectors are located at the principal import points, such as Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Saskatoon, Edmonton, Calgary, and Vancouver. Samples are taken from import shipments of canned and evaporated fruits and vegetables and, with the exception of those taken at Vancouver which numbered 1,181, are submitted to head office, and some 5,224 samples have been examined at Ottawa during the past year. A permanent Inspector is stationed in Vancouver for the purpose of grading samples from import shipments, as well as inspecting and grading samples of goods packed in British Columbia.

During the past fiscal year, 8,988 reports covering samples graded at Ottawa and at Vancouver were sent to the interested parties, this being an increase of 3,800 over the previous year. In addition, reports in letter form were forwarded on special lots; 385 samples of jams, jellies, glace cherries, catsup, etc., were submitted to the Dominion Chemist for analysis; 300 samples of tomato paste to the Pathologist for examination, and 325 samples of evaporated apples and waste were also submitted to the Chemist at Ottawa for moisture testing, and many others were tested in Nova Scotia and British Columbia.

When samples are found to be incorrectly labelled as to grade, steps are immediately taken whereby an Inspector places the entire lot under detention until such time as further samples are taken and graded. If the second samples are found similar to the first, then the packer or importer is required to relabel the goods to meet with the grade found.

Certain changes have been made in the regulations under the Meat and Canned Foods Act with respect to preserved fruits and vegetables and fruit and vegetable products as follows:—

Order in Council P.C. 852 of May 23, 1929. To facilitate the export movement of these products, the regulations were amended to permit of established brands in export markets receiving recognition so long as the Canadian products are purchased on a basis of quality.

Order in Council P.C. 920 of May 29, 1929. Defining standard containers for jams, jellies and marmalades and setting forth limit of time when such non-standard containers may be used.

Ministerial Order of March 17, 1930. Adding to present list of standard containers for canned fruits and vegetables which may be used without declaration of net weight and drained weight.

QUALITY STANDARDS FOR JAM, MARMALADE, JELLY AND PRESERVE

During the year standards of quality were set for jam, marmalade, jelly and preserve by Order in Council under the Food and Drugs Act, this regulation being administered by the Fruit Branch.

Under this legislation three standards of quality are established, a pure jam designated as such consisting of fruit and sugar only; for the second grade a named fruit with other fruit juice or pectin may be used; and for the third quality two or more fruits may be used and may or may not contain colour, preservative, glucose, corn syrup or other sweetening.

TRANSPORTATION DIVISION

The Transportation Division has had a very full year in its work relating to (a) traffic or costs of transportation and (b) facilities and practices for transportation of fresh fruits and vegetables. Principal among its traffic subjects were the following:—

The 1923 Express Rates Case, revived in the winter of 1928-29, was withdrawn definitely in January, 1930, leaving room for negotiations for local adjustments, of which a number are presently in hand.

Partial failure of the potato crop in the Prairie Provinces led to an application by potato shippers in the Maritime Provinces for freight rates sufficiently lower than the normal class basis in order that their potatoes could move into the Canadian Northwest in fair competition with potatoes from North Dakota and Minnesota, whose combined cost of freight and duty to Winnipeg, for instance, is 63 cents to 69 cents per 100 pounds. The high price ruling and expected for potatoes and the short crop in North Dakota and Minnesota disposed the railways to believe that Maritime potatoes needed no aid this season. Some reduction was granted after lengthy negotiations, but not enough to put maritime potatoes on a level footing with the imports which met considerable demand.

Assistance was given the provinces of British Columbia, Alberta, and Saskatchewan, on solicitation, in the preparation of a comparison of freight rates on fruit from British Columbia, in connection with their appeal for removal of the Mountain Differential.

Assistance was given the apple exporters of Nova Scotia in preparation of an application to the Board of Railway Commissioners for relief from the top wharfage charge assessed by the Halifax Harbour Commission on apples and potatoes for export through that port, it being held that this new cost, post-dating the Maritimes Freight Rates Act and reducing its benefit, should be recoverable by the Dominion Atlantic Railway under the Act instead of being assessed against the traffic. Recent favourable decision by the board will relieve the traffic of this charge for the future, and retroactive application will result in cash rebates and waiving of deferred collections totalling, it is estimated, over \$10,000 in the Annapolis valley.

Among questions of facilities and practices of the shippers and carriers, we are continuing our practical assistance in precooling-by-fanning methods for loaded cars. A marked advance was made at Haney, B.C., the past season, by reversing the direction of the fans, now pulling cold air off the ice and pouring it over the load. In the coming season an improved type of fan is to be tried out. Precooling apparatus purchased last season by shippers at Oliver, B.C., is being leased for practical demonstration at a point where volume of traffic and convenience in re-icing are more favourable than at Oliver. The car precooling principle is to be embodied in a carlot assembly plant to be constructed at Matsqui, B.C., south of the Fraser river, where an effort is being made to secure a refrigerator car body to be built into the plant and equipped with portable fans for precooling assembled and held-over lots of berries, with the same fans available for precooling straight carlots on track. The possibilities in carlot precooling instead of investment in expensive building and equipment for the purpose have attracted considerable attention in British Columbia.

During the past season the only temperature tests conducted in divided basket vs. brine tank refrigerator cars were with heated traffic. Unusual temperature and crop conditions gave few opportunities for tests with refrigerated fruits and vegetables, and the Canadian meat packers offered no opportunities for further tests with their traffic. The packers' objections to adoption of the divided basket bunker type of refrigerator car have eased off considerably, also the railways' orders for new equipment for 1930 delivery are for the basket type entirely, and it is intended that refrigerated and ventilated tests will be conducted during the 1930 movement.

From British Columbia we have a request to look into the benefits of controlled ventilation, i.e., ventilating with night air only vs. continuous ventilation, for those products which do not take kindly to refrigeration. We entirely agree with what is contended, that the insulated refrigerator car body could retain considerable of the night cooling effect, and that to close the ventilators against the sometimes excessive mid-day temperatures would prevent much of the over-maturity found in products moved under continuous or standard ventilation. Some shippers contend that they could more than double the sale of tomatoes in the Prairie Provinces if shipped better flavoured and coloured. The railways hold that the trainmen, through their organization, will resist any effort to have them made responsible for transit opening and closing of ventilators, and, of course, the practice would have little value if this were done at divisional points only. We propose, however, and will have co-operation of the railways, to look into the practical value of the practice, leaving operating difficulties for adjustment if or when the service proves worthy of negotiations or even of a special charge. Density of traffic justifying attendants, i.e., five or more cars per train, would solve the obstacle in question.

CANADIAN HORTICULTURAL COUNCIL

Many matters of interest to the fruit and vegetable industry have been given consideration by the Canadian Horticultural Council during the past year and full information with respect to its activities may be secured from its annual report. The Department continued to give this organization financial support to the extent of a grant of \$8,000 for the year 1929-30.

PUBLICATIONS BRANCH

The work of the Publications Branch during the fiscal year 1929-30 included the distribution of 4,442,918 bulletins, pamphlets, circulars, reports, press notices and special articles, involving the addressing of 3,282,850 envelopes from 107 mailing lists. This represents an increase of upwards of 15 per cent in the volume of work handled by the Branch as compared with the preceding fiscal year. Large as this distribution was it would have been much greater had it been possible more fully to acquaint farmers and others interested with the nature and extent of the published material available on request and without charge.

The ultimate value of the work done by the several branches of the Department of Agriculture throughout the Dominion depends directly upon the extent to which the results of research and experimentation are made available to those concerned in the agricultural industry, including not only farmers, dairy, live stock and poultrymen, but also the service organizations connecting the farm with the consumer, and the ultimate consumers of farm products.

It is as the connecting link between the Department and the public that the Publications Branch functions, and each year sees an increase in the practical range and extent of its operations.

The principal work of the Branch is the distribution of bulletins, pamphlets, circulars and reports containing information useful to those concerned with or engaged in the agricultural industry. This is supplemented and extended through a news and features service to the daily and weekly newspapers, the farm publications and other magazines in Canada.

At the present time 95 per cent of the distribution is made direct to individuals. The key to direct mailing of bulletins and other publications is Seasonable Hints, and of these 2,054,854 were sent out during the year under review. With each copy of "Hints" is included a reply-card carrying a list of some ten of the more recent publications. The return of these cards and special requests provided for the direct mailing of 767,317 publications during the year, as indicated below:—

PUBLICATIONS SENT OUT BY SPECIAL REQUEST

April, 1929.....	64,998
May, 1929.....	79,027
June, 1929.....	77,826
July, 1929.....	11,159
August, 1929.....	67,207
September, 1929.....	63,792
October, 1929.....	116,161
November, 1929.....	44,803
December, 1929.....	38,274
January, 1930.....	44,823
February, 1930.....	100,854
March, 1930.....	58,393
Total.....	767,317

DISTRIBUTION DIVISION

The work of the Distribution Division is summarized as follows:—

Item	1929-30	1928-29	Increase or Decrease
Seasonable Hints.....	2,054,854	1,360,143	694,711
Market Reports, etc.....	1,013,570	1,307,237	-293,667
Publications—New.....	604,132	889,097	-284,965
Publications—Old.....	688,814	211,240	477,574
Total.....	4,361,370	3,767,717	593,653
Press Items (256).....	70,010	42,470	27,540
Other Articles (193).....	6,978	4,392	2,586
Slip Lists.....			
Total.....	4,438,358	3,814,579	623,779

From this it will be seen that there was an increase of 15 per cent in total distribution, largely in connection with Seasonable Hints, Publications—old, and press items. Seasonable Hints now issues quarterly instead of three times a year, and the news service developed in the preceding year has been materially extended.

The decrease in market reports, etc., distribution comes through the withdrawal from circulation from June to October of the Seed, Feed and Fertilizer Market Report, accounting for a decrease of 130,000 copies, and the issuing of the Fruit and Vegetable Market Bulletin on a weekly instead of a twice-a-week basis, accounting for a further 80,000 copies. The increase in the slip-sheet item comes through the revision of mailing lists by the branches for whom they are maintained.

The "reply card" issued with Seasonable Hints and also included with each bulletin or pamphlet supplied on special request, continues to prove a useful medium in extending circulation, as is indicated by the following statement:—

PUBLICATIONS SENT ON REPLY CARDS

Reply Cards Received			Publications sent
Month	Year	Number	
April.....	1929	9,589	46,968
May.....	1929	2,137	23,644
June.....	1929	725	9,914
July.....	1929	10,048	24,907
August.....	1929	7,113	28,023
September.....	1929	2,773	5,721
October.....	1929	19,847	58,098
November.....	1929	12,137	36,412
December.....	1929	5,490	37,312
January.....	1930	12,129	28,205
February.....	1930	3,425	9,247
March.....	1930	12,528	31,000
Totals.....		98,031	339,451

An average of 3.4 publications are mailed for each reply card received.

PUBLICATIONS AVAILABLE

At the end of the fiscal year under review there were available for distribution in the Publications Branch 361 publications as listed below:—

Subject	Number available
<i>Reports—</i>	
Departmental.....	8
Dominion Experimental Farm.....	15
Branch Farms and Stations.....	25
<i>Bulletins, Pamphlets and Circulars—</i>	
Field Crops Division.....	55
Field Crops Reports.....	7
Livestock.....	50
Dairying.....	37
Orchard and Gardens.....	27
Insects and Plant Diseases.....	50
Poultry.....	27
Miscellaneous.....	44
Acts, Orders and Regulations.....	16
	361

Of these 361 publications available for distribution it is interesting to note that 138 were issued and distributed during the fiscal year 1929-30. Of a total of 1,115,842 copies received 604,132 were sent out.

MAILING LISTS DIVISION

In the Mailing Lists Division 107 separate mailing lists are maintained from which envelopes are addressed as required. The work of this Division is summarized as follows:—

MAILING LIST MAINTENANCE

	1929-30	1928-29	Increase or Decrease
Seasonable Hints.....	400,482	400,205	277
Address plates stamped.....	51,744	44,247	7,497
Addresses on special lists.....	3,466	3,462	4
Address lists.....	107	103	4
Special applications.....	45,996	54,201	-8,205
Addresses cancelled.....	35,315	20,459	14,856
Total address plates.....	477,580	473,582	3,998
Addresses changed.....	1,831	1,370	461

Constant revision is required to keep mailing lists up-to-date. One item alone is the revision of addresses occasioned by postal changes in new offices opened, offices closed, and old offices reopened—over 360 of these changes, an average of 30 per month, necessitated the revision of portions of all the lists during the year. New names are constantly being added, and of course much "dead wood" is constantly being weeded out. New names come from three principal sources—Dominion Experimental Farms and Stations, reply cards, the banks and similar large organizations dealing directly with farmers.

The work done by the Mailing Lists Division is summarized as follows:—

ENVELOPES ADDRESSED

For use in Mailing	1929-30	1928-29	Increase or Decrease
Bulletins and other printed matter.....	1,983,867	1,334,412	649,455
Market reports, etc.....	1,145,813	1,352,844	-207,031
Circulars, press items, etc.....	72,966	42,470	30,496
For other branch use.....	73,226	54,935	18,291
For Slip-List use.....	6,978	4,392	2,586
Totals.....	3,282,850	2,789,053	493,797

The increase in the distribution of Seasonable Hints and the decrease in the distribution of certain market reports noted in connection with the work of the Distribution Division, is also apparent in the number of envelopes addressed. The difference of 1,160,068 between the total items distributed and the total of envelopes addressed is interesting in that it shows rather conclusively the practical use to which envelopes are put.

In connection with the Mailing Lists Division it is interesting to note that there were 51,744 new address plates stamped in connection with 45,996 new applications and 37,146 address changes, an increase of 7,497 in the number of new plates made, and of 15,317 in the number of addresses changed, compared with the preceding fiscal year.

Mailing lists are maintained in this Division as follows:—

Branch	Number of lists	Number of address plates
Dairy and Cold Storage.....	4	10,131
Entomological.....	17	9,946
Experimental Farms.....	28	120,511
Library.....	3	3,744
Live Stock.....	17	20,481
Seed.....	15	14,340
Fruit.....	9	12,615
Publications.....	8	284,472
International Institute.....	4	284
World's Grain Exhibition and Conference.....	2	1,056
Totals.....	107	477,580

NEWS SERVICES

There has been a marked increase during the fiscal year 1929-30 in the volume and range of news material issued by the Publications Branch. A growing appreciation on the part of the press for the news value of service information is apparent and this important end of the work has been enlarged and completely reorganized to include the entire range of Canadian daily and weekly newspapers and farm publications. Material used by the Canadian press has increased in volume, and toward the close of the year this was extended to include a weekly summary of the live stock market reports.

A Clip-sheet service was inaugurated in March, with a distribution of 493 publications, including 100 daily newspapers, 35 farm publications, 323 self-print weekly newspapers printed in Toronto and Winnipeg respectively. The Clip-sheet service carries in the average of ten topical paragraphs relating to the work of the Department and farm interest, prepared in news style, embodying the departmental identification, and intended to develop and maintain interest in the Department and its work.

The Clip-sheet service is supplemented by a regular service of news material mailed direct to daily and weekly newspapers, and a special article service for farm publications and magazines.

NEW PUBLICATIONS

During the fiscal year the Publications Branch received 1,115,842 copies of new publications, of which 849,843 were printed in English and 265,999 were printed in French. Of these new publications 604,132 copies were distributed during the period, and of those distributed 469,380 were English and 134,752 were French. Complete detail with respect to the new publications received and their distribution is given in the following statement:—

NEW PUBLICATIONS

Branch and Title	Received			Distributed		
	English	French	Total	English	French	Total
Report of the Minister of Agriculture....	4,994	1,749	6,743	4,550	1,700	6,250
Dairy and Cold Storage Branch—						
Testing of Milk, Cream and Dairy						
Products by Babcock Test. Bul. 14	4,925	2,475	7,400	708	650	1,358
Buttermaking on the Farm. Bul. 57.	1,975		1,975	500		500
Composition of Canadian Cheddar and						
Process Cheese. Bul. 79.....	2,988		2,988	350		350
Manufacture of Ice Cream. Bul. 102..		2,475	2,475		315	315
List of Cheese Factories and Cream-						
eries in Canada. Bul. 109.....	50		50	50		50
Color Defect of Cheddar Cheese.						
Bul. 128.....	2,800		2,800	1,680		1,680
Why and How to Use Cottage Cheese.						
Cir. 7.....		29,600	29,600		950	950
Cause of Variations in the Percentage						
of Fat in Hand Separator Cream....		9,950	9,950		1,100	1,100
Milk Drinks. Cir. 43.....	9,900		9,900	3,200		3,200
Notes on the Cold Storage of Eggs.						
Cir. 50.....	975		975	75		75
Yield and Relative Value of Some						
Dairy Products. Cir. 68.....	2,400		2,400	100		100
Why and How to Use Milk. Pamp. 36	24,850		24,850	10,070		10,070
Care of Cream for Buttermaking.						
Pamp. 37.....		4,975	4,975		4,625	4,625
Neutralization of Cream for Butter-						
making. Pamp. 52.....		1,975	1,975		985	985
An Argument in the Kitchen. Pamp.						
67.....	500		500	50		50
The Cold Storage Act. No. 19.....	74		74	65		65
The Dairy Industry Act and Regula-						
tions, No. 26.....	4,890		4,890	2,000		2,000
Regulations Governing the Inspection						
of Condensed, Evaporated and						
Dried Milk, No. 27.....	26		26	9		9

NEW PUBLICATIONS—*Continued*

Branch and Title	Received			Distributed		
	English	French	Total	English	French	Total
The Entomological Branch—						
Insects of the Flower Garden. Bul. 99		4,900	4,900		3,000	3,000
Household Insects and Their Control. Bul. 112	24,490		24,490	15,390		15,390
The Rose Chafer, Cir. 44	1,400		1,400	150		150
Mosquito Control in Canada, Cir. 62	4,500		4,500	50		50
Round-Headed Apple-Tree Borer and Its Control, Cir. 73	2,700		2,700	50		50
The Satin Moth in British Columbia, Pamp. 50	1,400		1,400	720		720
Methods of Protection from Mosquitoes, Black Flies, and Similar Pests in the Forest, Pamp. 55	1,800		1,800	350		350
The Pale Western Cutworm, Pamp. 71	1,400		1,400	500		500
Experimental Farms Branch—						
Report of the Division of Animal Husbandry, March 31, 19	10,000	2,500	12,500	9,690	1,440	11,130
Report of Division of Bacteriology, 1928	4,350		4,350	4,300		4,300
Report of the Bee Division, 1928	7,550	2,650	10,200	6,200	2,400	8,600
Report of the Division of Botany		950	950		500	500
Report of the Cereal Division	6,150	2,200	8,350	2,842	1,950	4,792
Report of Chemistry Division, 1928	5,500	1,800	7,300	5,400	1,672	7,072
Report of Economic Fibre Division	6,350	1,950	8,300	5,200	1,900	7,100
Report of Field Husbandry Division, 1928	8,350		8,350	8,300		8,300
Report of Forage Plants Division	5,350	4,600	9,950	5,200	3,331	8,531
Report of Division of Horticulture, 1927		2,950	2,950		2,770	2,770
Report of the Poultry Division, 1928	12,850		12,850	3,754		3,754
Report of Experimental Farm, Agassiz, B.C.	6,900		6,900	6,850		6,850
Report of Experimental Sub-Station, Beaverlodge, Alta., 1927	950		950	810		810
Report of Experimental Farm, Brandon, Man., 1928		800	800		650	650
Report of Experimental Station, Cap Rouge, Que.	8,100	17,480	25,580	4,900	17,382	22,282
Report of Experimental Station, Charlottetown, P.E.I., 1928	12,650	900	13,550	12,600	850	13,450
Report of Experimental Station, Farnham, Que., 1928	3,960	3,575	7,535	2,760	2,615	5,375
Report of Experimental Station, Fredericton, N.B., 1928	8,600		8,600	8,500		8,500
Report of Experimental Farm, Indian Head, Sask., 1928	12,400		12,400	12,300		12,300
Report of Experimental Station, Kapuskasing, Ont.	4,450	1,950	6,500	4,000	1,800	5,800
Report of Experimental Station, Kentville, N.S.	6,050	950	7,000	6,000	900	6,900
Report of Experimental Station, Lacombe, Alta.	10,590	950	11,540	9,470	925	10,395
Report of Experimental Station, La Ferme, Que.	3,200	2,350	5,550	3,150	2,194	5,344
Report of Experimental Station, Lennoxville, Que., 1928	5,500	2,950	8,450	5,450	2,878	8,328
Report of Experimental Station, Lethbridge, Alta., 1928	4,450		4,450	4,375		4,375
Report of Experimental Station, Morden, Man., 1928	4,400	950	5,350	4,275	100	4,375
Report of Experimental Farm, Napan, N.S., 1928	5,050		5,050	5,000		5,000
Report of Experimental Farm, Rosethorn, Sask., 1928	5,500		5,500	5,250		5,250
Report of Experimental Station, Ste. Anne de la Pocatière, Que.	3,050	9,100	12,150	3,000	8,950	11,950
Report Experimental Station, Scott, Sask., 1928	22,760		22,760	22,700		22,700
Report Experimental Station, Sidney, B.C., 1928	5,350		5,350	5,110		5,110
Report of Experimental Station, Summerland, B.C., 1928	6,350		6,350	6,300		6,300

NEW PUBLICATIONS—*Continued*

Branch and Title	Received			Distributed		
	English	French	Total	English	French	Total
Experimental Farms Branch— <i>Con.</i>						
Report of Experimental Station, Swift Current, Sask., 1928.....	5,925		5,925	5,725		5,725
Report of Experimental Substations, 1927 and 1928:—Fort Providence, N.W.T.; Fort Vermilion, Alta.; Fort Smith, N.W.T.; Fort Resolution, N.W.T.; Fort Good Hope, N.W.T.; Salmon Arm, B.C.; and Betsiamites, Que.....	4,425		4,425	4,275		4,275
Report of Experimental Fox Ranch, Summerside, P.E.I., 1926-1927.....		3,950	3,950		1,700	1,700
Report of Illustration Stations in Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island, 1928.....	5,250		5,250	5,200		5,200
Report of Illustration Stations in British Columbia, Alberta, Saskatchewan and Manitoba, 1928.....	4,000		4,000	3,950		3,950
Preparing Poultry Produce for Market, Bul. 20.....	14,800	4,900	19,700	14,700	2,790	17,490
Rabbits, Bul. 28.....	9,700	4,900	14,600	4,024	3,000	7,024
Bees and How to Keep Them, Bul. 33.....	19,400		19,400	5,750		5,750
Preserving Fruits and Vegetables in the Home, Bul. 77.....	29,760	9,800	39,560	2,340	2,300	4,640
The Strawberry and Its Cultivation in Canada, Bul. 80.....	14,850		14,850	1,200		1,200
Smuts, Diseases of Cultivated Plants, Bul. 81.....	9,530	2,850	12,380	960	735	1,695
The Conversion of Dry Roughage into a Succulent Feed, Bul. 96.....	4,900	1,950	6,850	480	400	880
Tables for Computing Yields of Forage Crops, Bul. 97.....	100		100	90		90
Poultry Breeding Records, Bul. 103.....		1,850	1,850		1,800	1,800
Stem Rust in Western Canada, Bul. 106.....		925	925		325	325
Peas—A Guide to Seed Growers, Bul. 107.....		2,900	2,900		2,850	2,850
Canadian National Egg Laying Contests, Bul. 108.....	17,050	2,500	19,550	11,760	1,900	13,660
Studies in Forest Pathology, Pt. 2, Bul. 111.....	4,500		4,500	2,000		2,000
Herbaceous Perennials, Bul. 113.....	24,800	7,070	31,870	18,565	200	18,765
The Raspberry and Its Cultivation in Canada, Bul. 114.....	22,600	4,950	27,550	7,525	190	7,715
Cost of Producing Farm Crops in Eastern Canada, Bul. 115.....	14,916		14,916	9,756		9,756
Microbiological Studies of Honey, Bul. 116.....	4,800		4,800	450		450
Combined Reaper-Thresher, 1922-28, Bul. 118.....	14,750	3,850	18,600	9,550	865	10,415
Late Blight and Rot of Potatoes, Bul. 119.....	9,350	2,250	11,600	9,300	2,200	11,500
Corn Growing in Manitoba, Bul. 121.....	9,850	1,950	11,800	3,600	600	4,200
Close-Grazing, Composition of Grass, etc., Bul. 122.....	7,550		7,550	7,440		7,440
Testing the Producer's Milk for Quality, Bul. 123.....	14,850	4,950	19,800	12,305	600	12,905
Use of Irrigation Water on Farm Crops, Bul. 125.....	7,850		7,850	3,789		3,789
Grading Up the Dairy Cow by the Use of Pure-bred Sires, Bul. 126.....	25,010		25,010	6,750		6,750
Bacteriological Investigations of Milking Machines, Bul. 127.....	7,600		7,600	3,236		3,236
The Feeding of Dairy Cattle, Cir. 46.....		10,000	10,000		9,430	9,430
How to Make and to Use Hotbeds and Cold Frames, Cir. 63.....		10,000	10,000		700	700
Washing and Sterilization of Farm Dairy Utensils, Cir. 64.....		5,000	5,000		825	825
The Control of Loose Smut in Wheat, Cir. 66.....	10,000	2,000	12,000	915	1,950	2,865
The Diseases of Rye and Other Grains and Grasses Called Ergot, Cir. 69.....		1,950	1,950		1,900	1,900
Root Rots of Cereals, Cir. 72.....	6,450		6,450	4,125		4,125
Barley Culture in Canada, Pamp. 99.....	2,500		2,500	2,500		2,500

NEW PUBLICATIONS—*Concluded*

Branch and Title	Received			Distributed		
	English	French	Total	English	French	Total
Experimental Farms Branch— <i>Con.</i>						
Tomato Culture, Pamp. 100.....		10,000	10,000		1,400	1,400
The Yellow Disease of Hyacinths, Pamp. 104.....	1,000	100	1,100	700	70	770
The Black Leg Disease of Potatoes, Pamp. 105.....	8,900	2,450	11,350	8,850	2,450	11,300
Package Bees—And How to Install Them, Pamp. 107.....	24,350		24,350	2,836		2,836
The Farmer's Account Book.....	5,100		5,100	75		75
The Fruit Branch—						
Canning, Drying and Storing Fruit and Vegetables, Bul. 32.....		320	320		320	320
Canadian Grown Apples, Bul. 35.....	5,400		5,400	3,300		3,300
Fruit and Vegetables, Bul. 65.....	3,840		3,840	2,380		2,380
The Fruit Act and Regulations, No. 7.....	1,000		1,000	600		600
The Meat and Canned Foods Act, No. 25.....	250		250	150		150
The Root Vegetables Act and Regulations, No. 28.....	6,000		6,000	1,200		1,200
Health of Animals Branch—						
Report of the Veterinary Director General for the Year ending March 31, 1929.....	3,000	1,000	4,000	2,900	750	3,650
Fox Ranching in Canada, Bul. 12.....	12,000	4,000	16,000	3,600	1,640	5,240
Blackleg, Bul. 117.....	4,000	2,000	6,000	3,700	1,950	5,650
Anthrax, Bul. 120.....	5,000	2,000	7,000	4,975	1,975	6,950
The Meat and Canned Foods Act, No. 15.....	250		250	250		250
The Animal Contagious Diseases Act, No. 18.....	185		185	125		125
Bovine Tuberculosis—Regulations, etc.....	5,000		5,000	25		25
Bovine Tuberculosis—Plan for the Eradication of.....	500		500	25		25
Live Stock Branch—						
Sheep Dipping, Cir. 29.....	4,000		4,000	1,400		1,400
The Effect of Male Birds on Market Eggs, Cir. 60.....	1,500		1,500	500		500
The Dressing and Cutting of Lamb Carcasses, Pamp. 8.....	9,800		9,800	6,050		6,050
Selection of Lamb Cuts, Pamp. 9.....	9,000	6,000	15,000	3,700	5,940	9,640
How to Caponize, Pamp. 12.....	9,850	4,950	14,800	2,200	860	3,060
Bacon Hog and Hog Grading, Pamp. 40.....	18,000		18,000	10,156		10,156
Hog Marking, Pamp. 88.....	5,250		5,250	2,050		2,050
Advice to the Beginner in the Selection of Breeding Stock, Pamp. 106.....	10,500	6,300	16,800	3,500	6,250	9,750
Live Stock and Live Stock Produce Act, No. 18, S.I.....	100		100	100		100
Hog Grading Regulations, P.C. 352.....	2,000		2,000	200		200
The Grading and Marking of Dressed Poultry.....	4,500		4,500	1,000		1,000
The Grading and Marking of Eggs.....	9,500		9,500	3,925		3,925
Poultry Culling in New Brunswick.....	200		200	77		77
Suggestions for the Preparation of Frying or Broiling Chickens.....		3,200	3,200		2,400	2,400
Suggestions for Bigger Egg Profits.....	500	500	1,000	475	300	775
Beef Grading Service. Beef Chart.....	175		175	35		35
Report of Special Committee Appointed to Investigate Market Outlets for Alberta's Hog and Bacon and Pork Products in British Columbia and the Pacific Coast States of the United States.....	200		200	132		132
Publications Branch—						
List of Publications, Pamp. 101.....		200	200		200	200
List of Publications, Pamp. 108.....	30,000	10,000	40,000	9,376	1,665	11,041
Publications Index Book.....	10,000	2,330	12,330	250	630	880
The Seed Branch—						
The Feeding Stuffs Act, No. 10.....	2,080		2,080	280		280
The Agricultural Pests' Control Act, No. 22.....	2,500		2,500	300		300
Fertilizer Analyses No. 29.....	1,500	500	2,000	1,420	160	1,580
Totals.....	849,843	265,999	1,115,842	469,380	134,752	604,132

AGRICULTURAL ECONOMICS BRANCH

Provision was made during 1929 for the establishment of a new Branch in the Department to deal with the subject of Agricultural Economics. For a number of years work in this field has been carried on by different branches. An instance of this is the assistance and encouragement given to co-operative marketing activities by certain branches, details of which have appeared in these reports in years past. It was felt however that much of this work, which necessarily lacked co-ordination, might well be brought together in a new Branch and given added emphasis. By so doing new phases of work for which there has grown a demand in recent years, might be undertaken. This decision is directly in line with the requests of producers and farm organizations as well as provincial departments of agriculture and educational institutions throughout Canada and is in keeping with progressive agricultural development in other countries.

PROVINCIAL ACTIVITIES

In most of the provinces divisions of marketing or of economics have now been organized. In a few instances these divisions or branches had their inception ten or more years ago. Similarly, in all of the agricultural colleges in Canada, courses in agricultural economics are now taught and in most instances a separate department of agricultural economics exists. In view of this development, which reflects public interest in the subject, it was considered opportune and desirable to establish in this Department a Branch which would in a measure co-ordinate the work of federal and provincial authorities and undertake work of an inter-provincial nature or of a type which provincial bodies were not prepared to handle. In doing this and in the establishment of the services of this new Branch the intention is to recognize agricultural economics, embracing such divisions as co-operative marketing, farm management, agricultural history and so forth, as a distinct entity carrying on its research, service and educational activities in the closest co-operation with other Branches of this Department and with individuals and institutions in all parts of Canada. The establishment of this new service is the culmination of several years of effort and a further evidence of the desire of this Department to be of service to Canadian agriculture and the public generally.

BRANCH FORMALLY ORGANIZED

The Agricultural Economics Branch was formally organized October 1, 1929, although provision for its establishment had been made a few months earlier. The order creating the Branch called for the appointment of a Commissioner, an Assistant Commissioner, an assistant to the Commissioner and two stenographers. The Commissioner and one stenographer reported for duty October 1 and the Assistant to the Commissioner on November 1. Later a second stenographer was appointed and on April 1, 1930, the Assistant Commissioner assumed office.

During their first six months of operations which were the latter six months of the fiscal year now closed, officials of the new Branch were engaged largely in establishing offices, acquiring equipment and familiarizing themselves with the work of the Department generally. During this period too the Commissioner attended and addressed ten conventions and meetings in connection with the work of the new Branch. In addition several projects were started which will be referred to in more detail.

CO-OPERATIVE ACTIVITIES BEING SURVEYED

There are a large number of co-operative associations in Canada engaged in marketing farm products, buying farm supplies or providing other services

for farmers and others along co-operative lines. In several provinces co-operative activities have reached a very high stage of development, but while a great deal is known about a few of the very large associations little information is available on others and particularly the hundreds of smaller associations which are scattered throughout all of the provinces. As it is the intention of the Branch to do considerable research work with the associations and to be of service to officials and membership generally it was felt that the approach to the subject should be by way of an inventory of what is being done. With this in mind a detailed questionnaire was drawn up designed to bring out information on the operations of these organizations. These have been addressed to the associations and when the returns are in the results will be tabulated. The outcome should be a fairly good picture of co-operative activities in Canada. This sort of survey will have to be carried on at frequent intervals to keep our records up-to-date and to provide a source of data which can be drawn upon with reliability by persons interested in the subject. This survey, supplemented by personal study of the larger associations will start our statistical storehouse, so to speak, in which we expect to accumulate as years go by a worthwhile fund of information on an activity which represents several hundred thousand farmers and handles a turnover of between a quarter and a half billion dollars annually. This survey however, is but the start of a program which it is hoped to build upon and enlarge in the course of the next few years.

ECONOMIC SURVEYS

At the request of the Canadian Horticultural Council and other interested parties the Agricultural Economics Branch is undertaking a survey of conditions under which apples are being produced and marketed. This is part of a general program of research on behalf of the Horticultural industry.

The request for such a study was originally made sometime prior to the organization of this Branch and called for a survey of all phases of the horticultural industry. However a little consideration of the nature of the problem thus involved indicated the impossibility of including all or even several phases of the business in one study. It was decided therefore to start with a survey of the production and marketing of apples which represents one of the important phases of the horticultural industry, and to follow this with such other surveys as funds and personnel would permit.

With this in mind preliminary plans were drafted in co-operation with the Fruit Branch and with other interested bodies. Survey forms have been prepared and all of the necessary details worked out to enable a start on the survey being made as soon as the roads are fit for travel. It is intended to make a detailed study of orchard farming on a total of several hundred representative farms in the several fruit producing regions. From a somewhat larger number of producers as much information as possible will be obtained by questionnaire. This survey will embrace a complete study of business operations and will relate the profitability of farming to the production and marketing practices carried on. Following the survey of production conditions an analysis of marketing practices and results will be undertaken. This survey is but one of many such which will be initiated during the next few years to obtain basic data on actual farm operations.

EDUCATIONAL AND SERVICE

The staff of the Branch, as already stated, has been represented at ten conventions or meetings for the purpose of presenting discussions on agricultural economics and the activities of the Branch. In preparation for these addresses, agricultural production, consumption and foreign trade statistics were assembled and analyzed. There is a very keen interest in this type of information at the

present time due to the competition for markets, both domestic and foreign, and in presenting such data the Branch appears to be rendering a very timely and much appreciated service.

A very keen demand for information on economic subjects by government departments, associations and individuals has been experienced. In acting as a clearing house for information and as a co-ordinating body for provincial agencies interested in economic matters pertaining to agriculture the Branch has already been of considerable service. Indeed the major portion of the time of the staff during the past year has been occupied in assembling and preparing information for those requesting such.

SUPERVISION OF RACE TRACK BETTING

With the assistance and co-operation of the Royal Canadian Mounted Police, the Department of Agriculture supervised betting on all race tracks in Canada during the year 1929.

Race meetings were held on the race tracks of thirty racing associations, with a total of three hundred and thirty-five days racing. The total wagered on all tracks was \$45,580,845, while the total amount retained by associations as their legal percentage was \$3,104,455.65, while \$1,886,800 was paid as prize money.

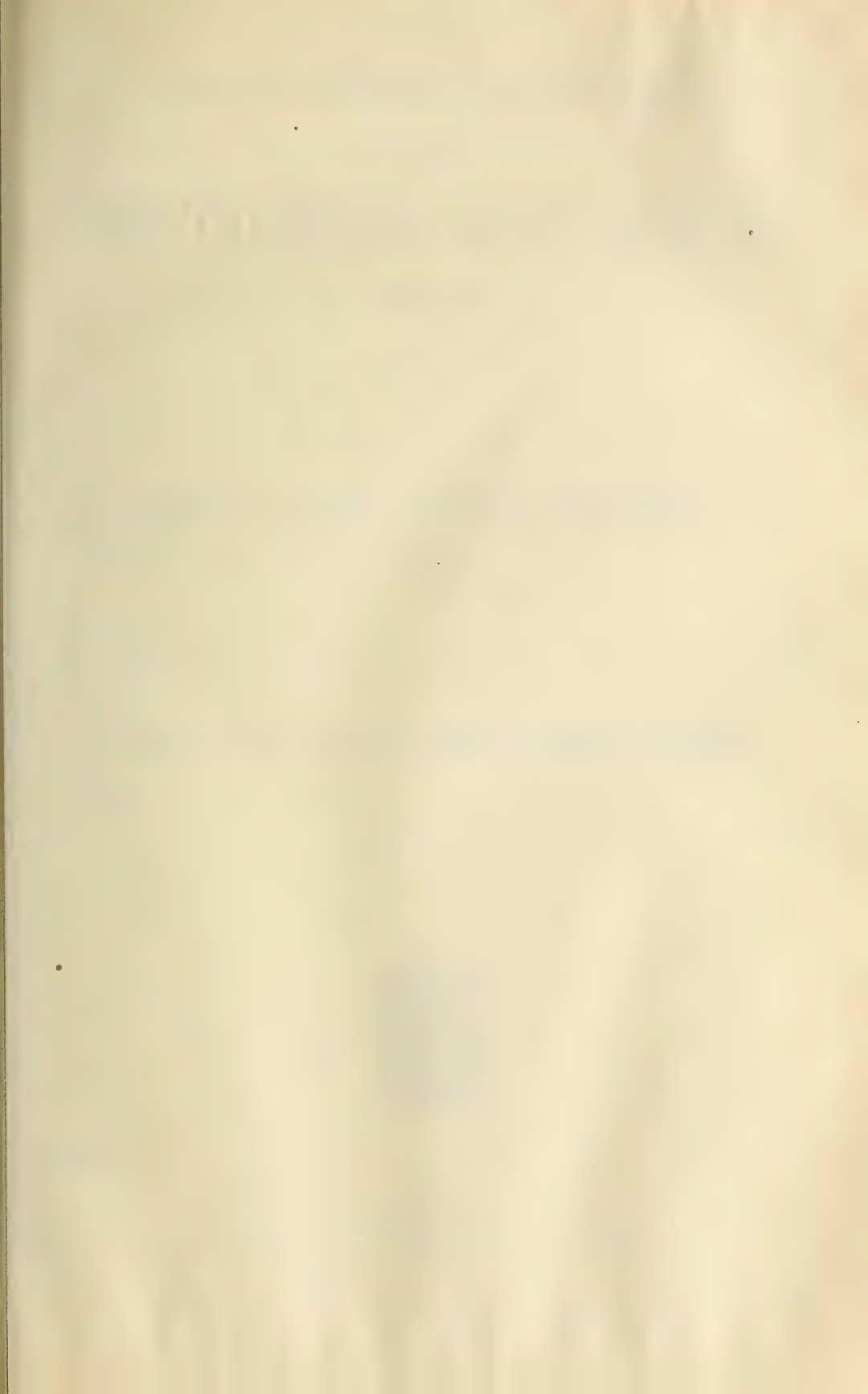
The following table gives by provinces Canadian race track statistics of betting for the year 1929:—

Province	Number of asso- ciations	Number of days racing	Amounts wagered	Pari-Mutuel receipts retained	Prize money
			\$	\$	\$
Quebec.....	7	87	7,177,709 00	521,176 60	402,700 00
Ontario.....	8	112	27,028,076 00	1,759,561 90	994,100 00
Manitoba.....	3	33	4,691,441 00	334,608 55	175,800 00
British Columbia.....	5	56	4,441,064 00	321,780 37	196,400 00
Alberta.....	5	35	1,848,530 00	137,516 98	92,700 00
Saskatchewan.....	2	12	394,025 00	29,811 25	25,100 00
CANADA.....	30	335	45,580,845 00	3,104,455 65	1,886,800 00

Respectfully submitted,

ROBERT WEIR,

Minister of Agriculture.



REPORT OF THE DEPARTMENT
OF
NATIONAL DEFENCE
CANADA

FOR THE
FISCAL YEAR ENDING MARCH 31
1930

(MILITIA AND AIR SERVICES)



250-7-30 (4045)
H.Q. 650-5-38

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief
of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the report
of the Department of National Defence (Militia and Air Services) for the fiscal
year ending March 31, 1930.

Respectfully submitted,

J. L. RALSTON,
Minister of National Defence.

DEPARTMENT OF NATIONAL DEFENCE,
OTTAWA, July 1, 1930.

OTTAWA, July 1, 1930.

The Honourable the Minister,
Department of National Defence,
Ottawa.

SIR,—I have the honour to submit for your consideration, to be laid on the Table of the House, this, the Annual Report of the Department of National Defence (Militia and Air Services) for the fiscal year 1929-30.

I have the honour to be, sir,

Your obedient servant,

G. J. DESBARATS,
Deputy Minister.

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REPORT OF THE DEPARTMENT OF NATIONAL DEFENCE, CANADA (Militia and Air Services)

FOR THE FISCAL YEAR ENDING MARCH 31, 1929

REPORT OF THE CHIEF OF THE GENERAL STAFF

The report of the several directorates and branches under the Chief of the General Staff are shown in the following order:—

(a) Militia Service

- (1) Military Operations and Intelligence.
- (2) Military Training and Staff Duties.
- (3) Armament.
- (4) Operation of Wireless Systems.
- (5) Physical Training and Cadet Services.
- (6) Historical Section.

(b) Royal Canadian Air Force

(1) Military Operations and Intelligence

Operations

Attention continues to be given to questions and problems in relation to defence.

Intelligence

The work of collecting, collating and disseminating military intelligence has been well maintained.

Geographical Section, General Staff

General

One control party was employed during the summer of 1929 in the province of Ontario, and topography was carried out in both Ontario and Quebec.

The Annual Course of Instruction in Surveying was held during the period January 7 to October 31, 1929. Seven candidates were authorized to take the course, and one qualified as a Skilled Topographical Surveyor, three were granted "Fair" certificates, and three, found unsuitable, were returned to their units. As part of their instruction this class ran, under supervision, one hundred miles of transit line and two hundred and ten miles of levels.

	square miles
Up to March 31, 1930, the total area surveyed, for which map sheets have been published was.....	43,050
Area fully surveyed (map sheets not published).....	2,000
Area controlled and photographed.....	1,940
Area controlled only.....	500
Total.....	47,490

The above figures include the following new work performed during 1929-30:—

	square miles
New 1" sheets published.....	1,529
Topography.....	1,370
Control.....	1,440
Aerial photography.....	3,250

Aerial Photography

Vertical aerial photographs for the Geographical Section were taken by the Royal Canadian Air Force, during the summer of 1929, over the following areas:—

	square miles
Portions of Peterborough, Rice Lake, Campbellford, Trenton, Tweed, Belleville and Wellington (Ontario).....	2,080
St. Evariste, Armstrong and part of Disraeli (Quebec).....	1,170

Field Work

Control.—The control party was in the field from May 1 to November 16, a period of 27½ weeks. This party ran 840 miles of transit line and 1,500 miles of levels, which completed the control in the Campbellford, Trenton, Belleville, and Wellington sheets.

Magnetic declinations were determined for the following four sheets: Peterborough, Rice Lake, Port Hope, and Belleville.

All computations have now been completed and show a satisfactory degree of accuracy in the field work.

Topography was completed for four standard sheets—Disraeli, Lindsay, Rice Lake, and Port Hope. In addition, the topography for a new 4-inch map of Trenton Air Station and vicinity was completed. The total amount of topography carried out was 1,370 square miles.

Photo Control and Photo Plotting was carried out during the winter of 1929-30, as follows:—

Sheet	Control	Plotting
St. Evariste, Armstrong.....	Nearly completed.....	68 square miles
Peterborough, Belleville and Trenton.....	Completed.....	420 "

Office Work

During the year the compiling, drawing, and publishing of air-route strip maps were undertaken and two strips—No. 1 Montreal to Morrisburg and No. 2 Morrisburg to Kingston—were published, while a further strip—Toronto to Windsor—was taken in hand.

The details of the work accomplished by the Reproduction and Publication Subsections follow:—

Printing—

(a) *For Department of National Defence—*

Four new 1" sheets were published, namely: Carleton Place, Beaverton, Newmarket, Arnprior.....	3,397
One new ½" sheet, Woburn, was published.....	455
Two new air-route strip maps, Nos. 1 and 2, were published.....	812
Fourteen 1" sheets and one ½" sheet were reprinted.....	7,983
Six 2" and 1/20,000 map sheets were reprinted.....	5,518
Two reprints of the Index Map for 1" and ½" sheets were made.....	510
Twenty-six forms and miscellaneous diagrams, etc., were printed.....	3,814
One confidential map was proved.....	20
Miniature targets, printed.....	36,738
Departmental cheques.....	240,145
Three maps for Civil Aviation Report.....	13,963
Two Regimental Colours were reproduced and printed.....	29
A new edition of the Western Front Map was printed.....	475
Grids were overprinted on three special maps.....	360
Co-ordinate cards.....	1,578

(b) *For other Government Departments—*

Twelve sheets of the map of London, Ontario, for the Geodetic Survey, reproduced and printed.....	6,058
Ten sheets for the Geological Survey, printed.....	32,151

Photography—

Wet plate negatives, 10" x 12" to 30" x 40".....	361
Photo-Litho zinc plates, 20" x 26" to 34" x 41".....	321
*Dry plate negatives, 3½" x 4½" to 5" x 7".....	116
*Photographic prints, 3½" x 4½" to 10" x 12".....	503
Blue and black prints, various sizes.....	123
Lantern slides.....	104
Roll films developed.....	11

*Included in these figures are reproductions of 21 Regimental Badges with 213 prints.

Maps Issued—

1" and ½" Topographic map sheets, air-route strip maps and miscellaneous maps sold to public.....	8,262
1" and ½" Topographic map sheets, air-route strip maps and miscellaneous maps issued free—	
National Defence Headquarters.....	2,978
Military Districts.....	4,532
Other Federal Government Departments.....	1,441
Provincial Government Departments.....	178
Educational institutions.....	359
Miscellaneous.....	2,472
	<hr/> 11,960

Total issued..... 20,222

During the period under review maps sold show an increase of 21·4 per cent, while free issues to educational institutions, reference libraries, etc., decreased 10·6 per cent. The total number issued, however, remains practically the same.

The proceeds from sale of maps show an increase of 36 per cent over those for the preceding year.

General Staff and Departmental Library

Volumes presented.....	4
Volumes purchased.....	278
Volumes bound periodicals.....	48
	<hr/>
Total (exclusive of statistics and general data received from other Branches and Departments of the Government).....	330
Volumes accessioned.....	560

Subscriptions to eighty-four weekly, monthly, and quarterly periodicals and eight daily newspapers were continued, the former of which are circulated throughout the Department.

All the books and binding orders placed during the period under review were delivered or completed before the end of the fiscal year.

(2) Military Training and Staff Duties

1. The money available in the N.P.A.M. Vote did not permit of any material change in the program of training during 1929-30. Therefore the policy of concentrating attention and effort towards the tactical training of units and sub-units combined with instruction in the use of weapons was continued.

2. In the N.P.A.M. approximately the same numbers trained as in 1928-29; there was a slight increase in camp training and a corresponding decrease in training at local headquarters.

PERMANENT FORCE

3. It was again considered that the best results would be obtained by assembling as far as possible Permanent Force units at central camps for training with the object of concentrating this year on individual rather than collec-

tive training. This was carried out in the form of instructional courses. Units attended camps as under:—

Petawawa Camp—July 24 to August 24—

Royal Canadian Dragoons.

Royal Canadian Regiment.

Royal 22e Regiment.

Royal Canadian Army Service Corps (from Military Districts 1 to 7).

Sarcee Camp—July 29 to August 29—

Lord Strathcona's Horse (Royal Canadians).

Princess Patricia's Canadian Light Infantry.

Royal Canadian Army Service Corps (from Military Districts 10 to 13).

4. In the case of units other than those above mentioned training was carried out locally.

NON-PERMANENT ACTIVE MILITIA

1. Training was divided generally into unit training at local headquarters or in camp and individual training at schools and courses of instruction.

2. Detachments of mobile artillery were authorized to carry out four days' training at local headquarters and eight days at practice camp. At Petawawa Camp, medium artillery for the first time in Canada trained as mechanized units, using lorries issued to the 3rd Medium Battery, R.C.A. This proved a decided success.

Heavy Artillery (Coast Defence units) trained for eight days at local headquarters and four days in gun practice at the forts.

3. In addition to unit training, Camp Schools not exceeding sixteen days' duration were held at various centres for the qualification of N.P.A.M. personnel.

The following table shows the training completed by units of the Non-Permanent Active Militia:—

MILITARY DISTRICT No. 1

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 8th Mounted Brigade.....				2		6	2		6
1st Hussars.....				19	98	1,417	19	98	1,417
H.Q. 7th Field Brigade, C.A.....	3	1	16	2	1	27	3	1	43
12th Field Battery, C.A.....	5	34	156	6	33	346	6	34	502
55th Field Battery, C.A.....	5	36	164	5	33	334	5	36	498
H.Q. 11th Field Brigade, C.A.....				1	1	18	1	1	18
16th Field Battery, C.A.....	5	35	141	5	32	327	5	35	468
29th Field Battery, C.A.....	4	36	160	5	34	345	5	36	505
7th Field Co. C.E.....	9	46	578				9	46	578
1st Divisional Signals C.C. of S.....	17	117	1,725				17	117	1,725
University of Western Ont. Contingent C.O.T.C.....	13	162	1,921				13	162	1,921
Ontario Agricultural College Contingent C.O.T.C.....	4	26	321				4	26	321
H.Q. 1st Infantry Brigade.....				3		9	3		9
Middlesex Light Infantry.....				21	114	1,548	21	114	1,548
The Perth Regiment.....	23	164	2,203				23	164	2,203
The Huron Regiment.....				16	84	1,176	16	84	1,176
The Canadian Fusiliers (City of London Regiment).....	25	183	2,350				25	183	2,350
The Bruce Regiment.....				16	99	1,377	16	99	1,377
The Oxford Rifles.....	20	144	1,719				20	144	1,719
The H. L. I. of Canada.....	28	172	1,523	19	105	452	28	182	1,975
The Wellington Rifles.....				16	136	1,824	16	136	1,824
The Scots Fusiliers of Canada.....	30	154	2,147				30	154	2,147
The Elgin Regiment.....	29	175	2,324				29	175	2,324
The Lambton Regiment.....	17	165	2,184				17	165	2,184
The Essex Scottish.....	34	244	3,290				34	244	3,290
The Kent Regiment.....	29	169	1,962				29	169	1,962
2nd Machine Gun Battalion C.M.G.C.....				20	108	1,517	20	108	1,517
1st Divisional Train, C.A.S.C.....				3	21	288	3	21	288
No. 11 Field Ambulance.....	5	22	324				5	22	324
No. 15 Field Ambulance.....	5	23	326				5	23	326
No. 1 Detachment, C.O.C.....				1	7	98	1	7	98
	310	2,108	25,534	160	906	11,109	430	2,786	36,643

MILITARY DISTRICT No. 2

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 1st Mounted Brigade.....				3	1	50	3	1	50
Governor General's Body Guard.....				16	106	1,439	16	106	1,439
2nd Dragoons.....				15	78	1,075	15	78	1,075
The Mississauga Horse.....				20	98	1,382	20	98	1,382
10th Brant Dragoons.....				14	71	993	14	71	993
H.Q. 3rd Field Brigade, C.A.....	2	1	12	2	1	25	2	1	37
9th (Toronto) Field Battery, C.A.....	5	34	156	5	34	330	5	34	486
15th Field Battery, C.A.....	5	34	156	5	34	327	5	34	483
30th Field Battery, C.A.....	5	34	156	5	34	332	5	34	488
53rd Field Battery, C.A.....	5	34	156	5	33	320	5	34	476
H.Q. 8th Field Brigade, C.A.....	2	1	12	2	1	27	2	1	39
10th (St. Catharine) Field Battery, C.A.....	5	34	156	5	34	347	5	34	503
11th (Hamilton) Field Battery, C.A.....	5	34	156	5	34	349	5	34	505
40th Field Battery, C.A.....	5	33	152	5	34	351	5	34	503
H.Q. 2nd Divisional Engineers.....	10	29	368				10	29	368
1st Field Troop, C.E.....	3	27	280				3	27	280
2nd Divisional Signals, C.C. of S.....	21	53	923				21	53	923
8th Divisional Signallers.....	5	47	627				5	47	627
Toronto University Cont'gent, C.O.T.C.....	22	296	3,684				22	296	3,684
H.Q. 4th Infantry Brigade.....	2		24				2		24
The Royal Hamilton Light Infantry.....	31	212	2,916				31	212	2,916
The Dufferin Rifles of Canada.....	27	120	1,398	7	27	136	27	120	1,534
The Wentworth Regiment.....	22	109	1,358	11	41	156	22	109	1,514
The Argyll and Sutherland Highlanders of Canada (Princess Louise's).....	34	256	3,469				34	256	3,469
H.Q. 5th Infantry Brigade.....				3	2	65	3	2	65
The Haldimand Rifles.....				16	115	1,363	16	115	1,363
The Norfolk Regiment of Canada.....	22	113	1,183	7	27	100	22	113	1,283
The Lincoln and Welland Regiment.....	31	115	1,739	20	151	1,679	31	151	3,418
H.Q. 6th Infantry Brigade.....	2		24				2		24
The Queens Own Rifles of Canada.....	65	369	5,040				65	369	5,040
The Royal Grenadiers.....	31	203	2,904				31	203	2,904
The 48th Regiment (Highlanders).....	34	414	5,358				34	414	5,358
H.Q. 14th Infantry Brigade.....	2		24				2		24
The Irish Regiment.....	27	48	786	14	14	112	27	48	898
The Toronto Regiment.....	31	160	2,205				31	160	2,205
The Toronto Scottish Regiment.....	31	259	3,457				31	259	3,457
The Queen's Rangers.....	30	172	2,275				30	172	2,275
H.Q. 22nd Infantry Brigade.....				3	2	63	3	2	63
The Grey Regiment.....				22	157	2,134	22	157	2,134
The Simcoe Foresters.....				24	128	1,811	24	128	1,811
The Northern Pioneers.....				10	116	1,554	10	116	1,554
The Algonquin Regiment.....				15	153	2,092	15	153	2,092
H.Q. 25th Infantry Brigade.....	3	1	32	3	3	24	3	3	56
The York Rangers.....	19	127	1,418	15	76	359	19	127	1,777
The Peel and Dufferin Regiment.....	26	141	1,287	21	116	523	26	141	1,810
The Halton Rifles.....	19	133	1,430	10	56	322	19	133	1,752
The Ontario Regiment.....	24	151	1,172	19	138	616	24	151	1,788
The Sault Ste. Marie Regiment.....	21	98	1,293				21	98	1,293
1st Machine Gun Battalion C.M.G.C.....	34	52	772	11	30	182	34	52	954
3rd Machine Gun Battalion C.M.G.C.....	29	137	1,966				29	137	1,966
2nd Divisional Train, C.A.S.C.....	17	37	648				17	37	648
8th Divisional Train, C.A.S.C.....	20	13	396	1	14	203	20	13	599
No. 2 Field Ambulance.....				4	32	423	4	32	423
No. 5 Field Ambulance.....				7	33	419	7	33	419
No. 7 Cavalry Field Ambulance.....				5	34	533	5	34	533
No. 16 Field Ambulance.....				5	34	456	5	34	456
No. 19 Field Ambulance.....				6	34	453	6	34	453
No. 2 Detachment C.A.D.C.....				1	1	24	1	1	24
No. 2 Detachment C.O.C.....					7	56		7	56
No. 2 Detachment C.P.C.....					2	26		2	26
Totals.....	734	4,131	51,568	371	2,136	23,231	927	5,374	74,799

MILITARY DISTRICT No. 3

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 2nd Mounted Brigade.....				2	4	76	2	4	76
Princess Louise Dragoon Guards.....				15	110	1,513	15	110	1,513
3rd Prince of Wales Can Dragoons.....				13	93	1,268	13	93	1,268
4th Hussars.....				6	79	1,019	6	79	1,019
H.Q. 1st Field Brigade, C.A.....	3		12	2		16	3		28
1st Field Battery, C.A.....	5	34	156	4	34	304	5	34	460
2nd (Ottawa) Field Battery, C.A.....	4	33	143	4	29	263	4	33	406
25th Field Battery, C.A.....	5	34	159	4	34	304	5	34	463
51st Field Battery C.A.....	6	33	156	4	35	303	6	35	459
H.Q. 4th Field Brigade, C.A.....	1	1	8	1		9	1	1	17
4th Field Battery, C.A.....	4	32	139	3	21	204	4	32	343
22nd Medium Battery, C.A.....	5	31	144	5	33	338	5	33	482
H.Q. 9th Field Brigade, C.A.....		1	4					1	4
3rd (Gananoque) Field Battery, C.A.....	5	25	177				5	25	177
32nd Field Battery, C.A.....	2	25	74				2	25	74
34th Field Battery, C.A.....	5	32	125	5	28	295	5	32	420
H.Q. 3rd Divisional Engineers.....				1		12	1		12
3rd Field Company C.E.....				6	41	556	6	41	556
3rd Divisional Signals C.C. of S.....				15	113	1,652	15	113	1,652
2nd Signal Troop C.C. of S.....				1	18	253	1	18	253
Queen's University Contingent, C.O.T.C.....	11	202	2,076				11	202	2,076
H.Q. 7th Infantry Brigade.....	2		5	1		2	2		7
The Prince of Wales Own Regt.....	21	170	1,630	18	132	458	21	170	2,088
The Argyll Light Infantry.....	22	162	1,578	16	144	480	22	162	2,058
The Peterborough Rangers.....	20	160	1,435	16	111	412	20	160	1,847
The Frontenac Regiment.....				17	155	2,071	17	155	2,071
The Victoria and Haliburton Regiment.....	22	127	1,490	16	80	201	22	127	1,691
The Brockville Rifles.....	27	164	1,926				27	164	1,926
H.Q. 8th Infantry Brigade.....				2	3	64		3	64
The Lanark and Scottish Regiment.....				26	131	1,884	26	131	1,884
The Grenville Regiment Lisgar Rifles.....				12	89	1,226	12	89	1,226
The Stormont, Dundas and Glengarry Highlanders.....				21	137	1,891	21	137	1,891
The Ottawa Highlanders.....	26	169	1,650	20	150	510	26	169	2,160
Le Regiment de Hull.....	25	166	2,245				25	166	2,245
H.Q. 9th Infantry Brigade.....				2	3	62		3	62
The Northumberland Regiment.....				16	117	1,588	16	117	1,588
The Hastings and P.E. Regiment.....				17	123	1,669	17	123	1,669
The Durham Regiment.....				22	159	2,113	22	159	2,113
The Governor General's Foot Guards.....	29	167	2,321				29	167	2,321
4th Machine Gun Battalion C.M.G.C.....	19	140	749	10	92	796	19	140	1,545
3rd Divisional Train, C.A.S.C.....				12	58	916	12	58	916
No. 1 Field Ambulance.....				5	30	415	5	30	415
No. 23 Field Ambulance.....				4	19	280	4	19	280
No. 3 Detachment C.O.C.....				1	6	87	1	6	87
No. 3 Section C.A.V.C.....					4	48		4	48
Totals.....	269	1,908	18,402	345	2,415	25,558	446	3,404	43,960

MILITARY DISTRICT No. 4

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
17th Duke of York's Royal Canadian Hussars.....				15	92	1,239	15	92	1,239
The Eastern Townships Mtd. Rifles.....				13	87	1,212	13	87	1,212
24th (Shefford) Fld. Bty. C.A.....	4	41	148	2	25	242	4	41	390
35th Fld. Bty. C.A.....	4	34	128	2	25	243	4	34	371
79th Fld. Bty. C.A.....	2	38	160				2	38	160
H.Q. 2nd Montreal Regt. C.A.....	2	1	12				2	1	21
H.Q. 2nd Field Brigade C.A.....	2	1	12				2	1	21
5th (Westmount) Field Battery C.A.....	5	36	164	5	34	325	5	36	489
7th Montreal Field Battery C.A.....	5	40	180	5	34	332	5	40	512
27th Field Battery C.A.....	5	32	148	4	34	321	5	34	469
66th Field Battery C.A.....	5	40	180	4	34	322	5	40	502
H.Q. 2nd Medium Brigade, C.A.....	3	1	16	2	1	26	3	1	42
1st. Medium Battery, C.A.....	5	40	180	5	34	330	5	40	510
3rd. Medium Battery, C.A.....	5	40	180	4	33	314	5	40	494
7th Medium Battery, C.A.....	5	40	180	4	34	323	5	40	503
10th Medium Battery, C.A.....	6	39	180	5	34	331	6	39	511
4th Divisional Engineers.....	12	48	720				12	48	720
4th Divisional Signals, C.C. of S.....	19	82	1,138				19	82	1,138
3rd Signal Troop, C.C. of S.....	2	16	188				2	16	188
McGill University C.O.T.C.....	22	81	1,236				22	81	1,236
Loyola College Contingent, C.O.T.C.....	6	119	1,494				6	119	1,494
University Bishops College Contingent, C.O.T.C.....	4	65	828				4	65	828
L'Universite de Montreal Contingent, C.O.T.C.....	16	195	2,532				16	195	2,532
H.Q. 10th Infantry Brigade.....				1		4	1		4
The Sherbrooke Regiment.....	25	125	1,461	15	75	339	25	125	1,800
Les Carabiniers de Sherbrooke.....	32	141	1,240	24	71	283	32	141	1,523
Le Regiment de St. Hyacinthe.....	23	127	1,568				23	127	1,568
H.Q. 11th Infantry Brigade.....	2	3	3				2	3	7
Le Regiment de Chateauguay.....				20	133	1,902	20	133	1,902
Les Carabiniers Mont Royal.....	29	291	2,560	20	125	580	29	291	3,140
Le Regiment de Joliette.....	4	84	966				4	84	966
The Three Rivers Regiment.....	24	163	1,873	12	52	256	24	163	1,629
Le Regiment de Maisonneuve.....	32	290	2,584	20	70	360	32	290	2,944
The Victoria Rifles of Canada.....	32	288	2,520	21	145	664	32	288	3,184
The Royal Highlanders of Canada.....	72	563	5,160	32	247	1,116	72	563	6,276
The Royal Montreal Regiment.....	33	287	2,561	23	168	523	33	287	3,084
The Canadian Grenadier Guards.....	28	292	2,560	20	138	632	28	292	3,192
1st Motor Machine Gun Brigade.....	17	83	796	14	37	204	17	83	1,000
8th Machine Gun Battalion, C.M.G.C.....	10	55	520	8	26	136	10	55	656
4th Divisional Train, C.A.S.C.....	20	56	906				20	56	906
No. 6 Field Ambulance.....	5	15	240				5	15	240
No. 9 Field Ambulance.....	7	17	288				7	17	288
No. 20 Field Ambulance.....				10	20	359	10	20	359
No. 4 Sect on C.A.V.C.....				3	36		3	36	
No. 4 Detachment C.P.C.....				1	2	12	1	2	12
Totals.....	534	3,906	37,310	312	1,754	12,979	594	4,245	50,289

MILITARY DISTRICT No. 5

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 4th Mounted Brigade.....				2	5	90	2	5	90
7th Hussars.....				18	82	1,226	18	82	1,226
11th Hussars.....				16	82	1,295	16	82	1,295
H.Q. 13th Field Brigade C.A.....	2	1	12	1		9	2	1	21
57th (Quebec) Field, Battery, C.A.....	4	41	180	5	34	344	5	41	524
82nd Field Battery C.A.....	2	36	152	1	31	384	2	36	536
H.Q. 6th (Quebec & Levis) Coast Brigade.....	3	2	20	4	2	60	4	2	80
57th Heavy Battery C.A.....	5	48	202	4	36	400	5	48	602
58th Heavy Battery C.A.....	5	49	215	4	36	400	5	49	615
59th Heavy Battery C.A.....	4	49	211	4	36	400	4	49	611
H.Q. 5th Divisional Engineers.....	1		24				2		24
15th Field Company, C.E.....		18	220				1	18	220
5th Divisional Signals, C.C. of S.....	25	81	1,236				25	81	1,236
4th Signal Troop, C.C. of S.....	1	19	224				1	19	224
Laval University Contingent, C.O.T.C.....	6	52	678				6	52	678
H.Q. 13th Infantry Brigade.....				3	1	48	3	1	48
Le Regiment de Montmagny.....				19	72	1,101	19	72	1,101
Le Regiment de Beauce.....				23	94	1,404	23	94	1,404
Fusiliers du St. Laurent.....				29	209	2,905	29	209	2,905
Les Chasseurs Canadiens.....				14	104	1,435	14	104	1,435
Les Francs Tireurs de Saguenay.....				8	82	1,096	8	82	1,096
The Royal Rifles of Canada.....	26	170	1,610	25	126	486	26	170	2,096
Les Voltigeurs de Quebec.....	31	219	2,991				31	219	2,991
Le Regiment de Quebec.....	29	167	2,288				29	167	2,288
Le Regiment de Levis.....	22	154	2,002				22	154	2,002
5th Divisional Train, C.A.S.C.....				11	36	574	11	36	574
No. 25 Field Ambulance.....	6	24	180	6	24	168	6	24	348
No. 30 Field Ambulance.....				5	19	141	5	19	141
No. 5 Section, C.A.V.C.....				4	48			4	48
No. 5 Detachment C.P.C.....				1	2	24	1	2	24
Totals.....	174	1,130	12,445	203	1,116	14,038	322	1,921	26,483

MILITARY DISTRICT No. 6

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
Kings Canadian Hussars.....				13	73	1,059	13	73	1,059
The P.E.I. Light Horse.....				17	73	1,127	17	73	1,127
H.Q. 14th Field Brigade C.A.....	1	1	8	2	1	36	3	2	44
52nd Field Battery, C.A.....	5	33	152	4	34	437	5	34	589
84th Field Battery, C.A.....	5	34	156	5	34	468	5	34	624
87th Field Battery, C.A.....	4	34	152	3	34	444	4	34	596
H.Q. 16th Field Brigade, C.A.....	2	1	12	2	1	36	2	1	48
6th (Sydney) Field Battery, C.A.....	5	33	152	5	34	468	5	34	620
36th Field Battery C.A.....	5	34	156	4	34	456	5	34	612
83rd Field Battery C.A.....	4	33	148	4	34	437	4	34	585
86th Field Battery, C.A.....	5	34	156	5	34	468	5	34	624
H.Q. 1st (P.E.I.) Medium Brigade.....	1	1	8	1	1	23	1	1	31
1st Halifax Coast Brigade, C.A.....	18	134	1,217	18	100	398	18	134	1,615
2nd Medium Battery, C.A.....	5	33	152	4	34	436	5	34	588
8th Medium Battery, C.A.....	4	33	148	4	32	414	4	33	562
9th Heavy Battery, C.A.....	5	34	156	5	34	468	5	34	624
No. 7 (Fortress) Signal Company, C.C. of S.				3	27	406	3	27	406
No. 2 Company 6th Divisional Signals, C.C. of S.				5	50	686	5	50	686
10th Fortress Company, C.E.....	3	52	542				3	52	542
Dalhousie University Contingent, C.O.T.C.	4	75	807				4	75	807
Nova Scotia Technical College Contingent, C.O.T.C.	3	45	548				3	45	548
H.Q. 17th Infantry Brigade.....				3	2	68	3	2	68
The Lunenburg Regiment.....				15	111	1,518	15	111	1,518
The Annapolis Regiment.....				15	98	1,365	15	98	1,365
The Colchester & Hants Regiment.....				17	102	1,468	17	102	1,468
The Halifax Rifles.....	23	84	1,063		7	84	23	84	1,147
The Princess Louise Fusiliers.....	13	93	1,077		9	108	13	93	1,185
H.Q. 18th Infantry Brigade.....				3	2	68	3	2	68
The Pictou Highlanders.....				23	100	1,477	23	100	1,477
The Cumberland Highlanders.....				18	99	1,417	18	99	1,417
The Cape Breton Highlanders.....				13	99	1,340	13	99	1,340
The P.E.I. Highlanders.....				20	99	1,514	20	99	1,514
6th Machine Gun Battalion, C.M.G.C.....				17	84	1,210	17	84	1,210
6th Divisional Train C.A.S.C.....				6	23	376	6	23	376
No. 22 Field Ambulance.....				4	29	396	4	29	396
No. 26 Field Ambulance.....				4	30	443	4	30	443
No. 6 Detachment C.O.C.....				1	2	51	1	2	51
No. 6 Section, C.A.V.C.....				1		12	1		12
No. 6 Detachment C.P.C.....					1	15		1	15
Totals.....	115	821	6,810	264	1,561	21,197	314	1,929	28,007

MILITARY DISTRICT No. 7

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 9th Mounted Brigade.....				3	3	77	3	3	77
8th Princess Louise N.B. Hussars.....				18	75	1,132	18	75	1,132
The N.B. Dragoons.....				17	77	1,178	17	77	1,178
H.Q. 12th Field Brigade, C.A.....	2	1	12	2	1	33	2	1	45
8th Field Battery C.A.....	4	32	144	5	34	429	5	34	573
28th (Newcastle) Field Battery, C.A.....	4	35	156	5	34	418	5	35	574
89th (Woodstock) Field Battery C.A.....	4	34	152	4	34	418	4	34	570
90th Field Battery, C.A.....	1	33	136	3	34	407	3	34	543
H.Q. 3rd N.B. Medium Brigade, C.A.....	1	1	8	1	1	22	1	1	30
4th Medium Battery, C.A.....	6	34	160	5	34	428	6	34	588
6th Medium Battery, C.A.....	6	30	144	5	33	418	6	33	562
15th Medium Battery, C.A.....	6	34	160	4	34	412	6	34	572
1st Brighton Field Company, C.E.....				1	19	244	1	19	244
6th Divisional Signals, C.C. of S.....				6	44	635	6	44	635
University of N.B. Contingent, C.O.T.C.....	10	160	1910				10	160	1,910
H.Q. 16th Infantry Brigade.....				3		80	3		80
The Carleton Light Infantry.....				16	116	1,562	16	116	1,562
The York Regiment.....				25	95	1,413	25	95	1,413
The North Shore (N.B.) Regiment.....				22	95	1,388	22	95	1,388
The N. B. Rangers.....				22	105	1,556	22	105	1,556
The St. John Fusiliers.....	22	101	824	14	74	394	22	101	1,218
7th Machine Gun Battalion, C.M.G.C.....				24	100	1,453	24	100	1,453
7th Divisional Train, C.A.S.C.....				4	31	508	4	31	508
No. 14 Field Ambulance.....				9	21	317	9	21	317
No. 7 Detachment C.O.C.....					5	75		5	75
No. 7 Section C.A.V.C.....					3	36		3	36
Totals.....	66	495	3,806	218	1,105	15,033	240	1,293	18,839

MILITARY DISTRICT No. 10

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 6th Mounted Brigade				2	3	60	2	3	60
The Fort Garry Horse				11	148	1,979	11	148	1,979
The Manitoba Horse				10	83	1,128	10	83	1,128
The Manitoba Dragoons				10	153	1,948	10	153	1,948
The Manitoba Mounted Rifles				15	177	2,449	15	177	2,449
The Border Horse				4	42	572	4	42	572
H.Q. 5th Field Brigade C.A.	2		8	2		16	2		24
13th (Winnipeg) Field Battery, C.A.	5	34	156	5	34	309	5	34	465
17th Field Battery, C.A.	4	34	152	4	34	303	4	34	455
19th Field Battery, C.A.	5	34	156	5	34	312	5	34	468
38th Field Battery, C.A.	5	34	156	5	34	294	5	34	450
59th Field Battery, C.A.	5	16	116				5	16	116
12th Field Company, C.E.	2	19	252				2	19	252
10th Divisional Signals, C.C. of S.	10	16	331	4	35	499	10	35	830
Manitoba University Contingent, C.O.T.C.	6	51	741				6	51	741
H.Q. 20th Infantry Brigade	21	170	1,653				21	170	1,653
The Winnipeg Rifles	2		24	2			2		24
The Winnipeg Grenadiers	25	131	1,872				25	131	1,872
The Queen's Own Cameron Highlanders	19	169	1,800				19	169	1,800
The Winnipeg Light Infantry	20	138	1,896				20	138	1,896
The Lake Superior Regiment	23	127	1,800				23	127	1,800
The Kenora Light Infantry	25	125	1,800				25	125	1,800
The Manitoba Rangers	10	73	710				10	73	710
1st Cavalry Machine Gun Squadron	22	129	1,768				22	129	1,768
2nd Motor Machine Gun Brigade	5	47	552				5	47	552
10th Machine Gun Battalion, C.M.G.C.	7	38	420				7	38	420
10th Divisional Train, C.A.S.C.	19	89	1,200				19	89	1,200
No. 3 Field Ambulance	6	11	128				6	11	120
No. 4 Field Ambulance	7	28	420				7	28	420
No. 21 Cavalry Field Ambulance	6	29	420				6	29	420
No. 10 Section C.A.V.C.				1	13	168	1	13	168
					4	48		4	48
Totals	261	1,542	18,531	76	794	10,085	314	2,184	28,616

MILITARY DISTRICT No. 11

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
5th B.C., Light Horse				15	81	1,251	15	81	1,251
The B.C. Dragoons				19	144	2,146	19	144	2,146
H.Q. 15th Field Brigade, C.A.	3	1	16		1	11	3	1	27
31st Field Battery, C.A.	5	38	172	5	28	338	5	38	510
68th Field Battery, C.A.	6	39	180	4	34	390	6	39	570
85th Field Battery, C.A.	5	38	169	4	33	389	5	38	558
5th Medium Battery, C.A.	5	40	171	5	34	410	5	40	581
H.Q. 5th (B.C.) Coast Brigade, C.A.	4	26	240	3	2	16	4	26	256
55th Heavy Battery, C.A.	5	38	294	5	38	226	5	38	520
56th Field Battery, C.A.	5	30	205	5	30	182	5	30	387
2nd Anti-Aircraft Section	2	16	126	2	16	92	2	16	218
58th Field Battery, C.A.	5	30	134	4	34	418	5	30	552
12th Heavy Battery, C.A.	1	5	24				1	5	24
H.Q. 11th District Engineers	3		24	1		4	3		28
6th Field Company, C.E.	5	37	318	1	8	36	5	37	354
11th Divisional Signals	4	14	234				4	14	234
No. 11 (Fortress) Signals Company, C.C. of S.	1	24	175	1	24	150	1	24	325
British Columbia University Contingent, C.O.T.C.	7	89	964				7	89	964
H.Q. 23rd Infantry Brigade	2	4	48	1	5	24	2	5	72
1st B.C. Regiment (Duke of Connaught's Own)	25	105	1,038	20	79	409	25	105	1,447
The Vancouver Regiment	16	120	1,088	12	73	350	16	120	1,438
The Westminster Regiment	20	129	1,140	16	60	318	20	129	1,458
The Seaforth Highlanders of Canada	26	146	1,376	14	119	538	26	146	1,914
The Irish Fusiliers of Canada	19	99	944	10	58	286	19	99	1,230
The Rocky Mountain Rangers				7	40	560	7	40	560
The Canadian Scottish Regiment	34	163	1,576	32	118	618	34	163	2,194
11th Machine Gun Battalion, C.M.G.C.	18	86	818	6	53	250	18	86	1,068
11th Divisional Train, C.A.S.C.	11	32	492				11	32	492
No. 13 Field Ambulance	6	8	76				6	8	76
No. 18 Field Ambulance	5	35	320	5	10	58	5	35	378
Totals	248	1,392	12,362	197	1,122	9,470	289	1,658	21,832

MILITARY DISTRICT No. 12

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 7th Mounted Brigade.....				1		13	1		13
14th Canadian Light Horse.....				8	79	1,042	8	79	1,042
16th Canadian Light Horse.....				12	83	1,159	12	83	1,159
18th Canadian Light Horse.....				8	85	1,135	8	85	1,135
The Saskatchewan Mounted Rifles.....				8	75	1,024	8	75	1,024
18th Field Battery, C.A.....	3	31	111	3	31	306	3	31	417
60th Field Battery, C.A.....	3	25	93	3	24	297	3	25	390
77th Field Battery, C.A.....	5	27	128	4	22	170	5	27	298
H.Q. 17th Field Brigade, C.A.....	2		8				2		8
21st Field Battery, C.A.....	5	50	181	5	34	350	5	50	531
44th Field Battery, C.A.....	6	29	104	2	22	214	6	29	318
3rd Field Troop, C.E.....	2	15	204				2	15	204
14th Field Company, C.E.....	5	24	299				5	24	299
12 Divisional Signals.....				8	111	1,522	8	111	1,522
6th Signal Troop.....					9	117		9	117
Saskatchewan University C.O.T.C.....	19	159	2,136	4	13	174	19	159	2,310
H.Q. 19th Infantry Brigade.....				1		1			1
King's Own Rifles of Canada.....	23	137	1,794				23	137	1,794
The Regina Rifle Regiment.....	21	188	1,565	9	129	578	21	188	2,143
The Weyburn Regiment.....				7	115	1,384	7	115	1,384
The Assiniboia Regiment.....				9	83	1,108	9	83	1,108
The Saskatchewan Border Regiment.....				6	120	1,503	6	120	1,503
The Saskatoon Light Infantry.....	18	116	1,578				18	116	1,578
The Prince Albert Volunteers.....				11	107	1,428	11	107	1,428
The Yorkton Regiment.....				12	106	1,404	12	106	1,404
The Battleford Light Infantry.....				9	118	1,551	9	118	1,551
12th Machine Gun Battalion, C.M.G.C.....	9	56	673	5	26	380	9	56	1,053
12th Divisional Train, C.A.S.C.....	7		84		14	163	7	14	247
No. 10 Field Ambulance.....				3	15	216	3	15	216
No. 32 Field Ambulance.....	7	26	278				7	26	278
No. 12 Detachment, C.O.C.....	1	8	96				1	8	96
Total.....	136	891	9,332	138	1,421	17,239	239	2,011	26,571

MILITARY DISTRICT No. 13

Unit	At Local Headquarters			At Camps			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
H.Q. 5th Mounted Brigade.....				3	3	72	3	3	72
15th Canadian Light Horse.....				16	155	2,062	16	155	2,062
19th Alberta Dragoons.....				17	170	2,226	17	170	2,226
1st Alberta Mounted Rifles.....				6	88	1,119	6	88	1,119
2nd Alberta Mounted Rifles.....				15	111	1,513	15	111	1,513
H.Q. 18th Field Brigade, C.A.....	1	1	8				1	1	8
20th Field Battery, C.A.....	4	32	144	4	31	272	4	32	416
22nd Field Battery, C.A.....	3	19	82	2	17	152	3	19	234
H.Q. 20th Field Brigade, C.A.....	2	1	12	2	1	24	2	1	36
61st Field Battery, C.A.....	5	34	156	5	34	312	5	34	468
78th Field Battery, C.A.....	5	23	112	5	23	221	5	23	333
92nd Field Battery, C.A.....	5	34	156	5	34	312	5	34	468
4th Field Troop, C.E.....	3	26	311				3	26	311
13th Divisional Signals.....	13	72	643	10	42	247	13	72	890
Alberta University, C.O.T.C.....	31	239	3,078				31	239	3,078
H.Q. 24th Infantry Brigade.....	2		18	2		6	2		24
The Calgary Highlanders.....	25	94	990	17	67	234	25	94	1,224
The Calgary Regiment.....	24	131	1,439	17	93	342	24	131	1,781
The South Alberta Regiment.....	20	134	615	12	83	754	20	134	1,369
H.Q. 29th Infantry Brigade.....	1		4				1		4
The Edmonton Regiment.....	24	146	671	17	129	1,165	24	146	1,836
The Edmonton Fusiliers.....	20	110	520	15	107	955	20	110	1,475
The North Alberta Regiment.....	1	29	120	2	19	161	2	29	281
13th Machine Gun Battalion, C.M.G.C.....	17	82	578	8	49	344	17	82	922
13th Divisional Train, C.A.S.C.....	5	10	106	5	21	167	5	21	273
No. 8 Field Ambulance.....	4	27	242				4	27	242
No. 17 Cavalry Field Ambulance.....				3	30	364	3	30	364
Total.....	215	1,244	10,005	188	1,307	13,024	276	1,812	23,029

SUMMARY—NON-PERMANENT ACTIVE MILITIA TRAINING, 1929-30.

1. UNIT TRAINING

Arms of Service	Numbers Trained At Local Headquarters			Numbers Trained at Camps		
	All Ranks	Men days	Average Period Days	All Ranks	Men days	Average Period days
Cavalry.....				3,504	42,771	12.2
Artillery.....	3,189	13,521	4.2	2,780	25,266	9.1
Engineers.....	346	3,598	10.4	78	852	10.9
Signals.....	771	8,727	11.3	526	6,167	11.7
Officers Training Corps.....	2,334	25,866	11.1	17	174	10.2
Infantry.....	14,370	139,379	9.7	9,644	81,761	8.5
Machine Gun.....	1,049	9,044	8.6	728	6,472	8.9
Other Arms and Services.....	571	5,970	10.5	832	9,500	11.4
Total.....	22,630	206,105	9.1	18,109	172,963	9.6

2. SCHOOL TRAINING

Subject	Officers	Other Ranks	Total all Ranks
Number attended Royal and District Camp Schools.....	776	856	1,632
Number attended Central Camp Schools.....	180	223	403
Number attended Provisional Schools.....	719	2,708	3,427

NON-PERMANENT ACTIVE MILITIA TRAINING 1929-30—RECAPITULATION

Military Districts	Numbers Trained								
	At Local Headquarters			At Camps (exclusive of District Camp Schools)			Total Trained		
	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days	Officers	Other Ranks	Men Days
1.....	310	2,108	25,534	160	906	11,109	430	2,786	36,643
2.....	734	4,131	51,568	371	2,136	23,231	927	5,374	74,799
3.....	269	1,908	18,402	345	2,415	25,558	446	3,404	43,960
4.....	534	3,906	37,310	312	1,754	12,979	594	4,245	50,289
5.....	174	1,130	12,445	203	1,116	14,038	322	1,921	26,483
6.....	115	821	6,810	264	1,561	21,197	314	1,929	28,007
7.....	66	495	3,806	218	1,105	15,033	240	1,293	18,839
10.....	261	1,542	18,531	76	794	10,085	314	2,184	28,616
11.....	248	1,392	12,362	197	1,122	9,470	289	1,658	21,832
12.....	136	891	9,332	138	1,421	17,239	239	2,011	26,571
13.....	215	1,244	10,005	188	1,307	13,024	276	1,812	23,029
Total.....	3,062	19,568	206,105	2,472	15,637	172,963	4,391	28,617	379,068

SCHOOLS OF INSTRUCTION

The program for Schools of Instruction was based on that which obtained in 1928-29. The results compare favourably with those of last year.

Again Permanent Force personnel rendered all assistance possible within the limitations imposed by the restricted strength of the force. The efficiency of the Instructional Cadre and the very satisfactory assistance its personnel has rendered to the N.P.A.M. at Courses and Schools of Instruction is again brought to notice.

Courses for the Permanent and Non-Permanent Active Militia were held as follows:—

COURSES ABROAD

*Permanent Force**Imperial Defence College*

Lt.-Col. W. G. Beeman, D.S.O., R.C.A., January, 1930, to January, 1931.

Staff College, Camberley

Captain R. O. G. Morton, R.C.A., January, 1928, to December, 1929.

Lieut. (Bvt. Capt.) R. G. Whitelaw, R.C.R., January, 1928, to December, 1929.

Captain M. H. S. Penhale, R.C.A., January, 1929, to December, 1930.

Captain J. C. Murchie, R.C.A., January, 1929, to December, 1930.

Lieut. (bvt. Major) H. L. N. Salmon, M.C., R.C.R., January, 1930, to December, 1931.

Staff College, Quetta

Major E. L. M. Burns, M.C., R.C.E., February, 1928, to December, 1929.

Lieut. (bvt. Capt.) G. R. Bradbrooke, M.C., L.S.H. (R.C.), February, 1928, to December, 1930.

Senior Officers' School

Lt.-Col. W. G. Hagarty, D.S.O., R.C.A., May, 1929, to August, 1929.

Major (bvt. Lt.-Col.) A. E. Harris, R.C.A., September, 1929, to December, 1929.

Major H. O. Lawson, R.C.A.S.C., January, 1930, to April, 1930.

R.A.M.C. College

Captain J. V. Williams, M.C., R.C.A.M.C., February, 1929, to September, 1929.

GUNNERY STAFF COURSE

Captain (bvt. Major) C. V. Bishop, M.C., R.C.H.A., September, 1928, to August, 1929.

Captain (bvt. Major) W. H. Dobbie, D.S.O., R.C.A., September, 1929, to August, 1930.

Lieut. (bvt. Capt.) A. E. Routier, M.C., R.C.A., September, 1929, to August, 1930.

School of Military Engineering

Lieut. A. J. Kerry, R.C.E., August, 1929, to October, 1930.

Advanced Class Military College of Science

Captain G. B. Howard, R.C.O.C., November, 1928, to February, 1931.

Junior Officers' Course, R.A.S.C. College

Lieut. G. E. R. Smith, R.C.A.S.C., March, 1928, to April, 1930.

Ordnance Officers' Course

Lieut. E. H. Parsons, R.C.O.C., February, 1930, to December, 1930.

Equitation

Captain N. A. Gianelli, L.S.H. (R.C.), January, 1929, to May, 1929.

No. 783 A/Sgt. F. A. Green, R.C.D., July, 1928, to May, 1929.

No. 2754 Sgt. G. E. Reade, L.S.H. (R.C.), July, 1928, to May, 1929.

Small Arms Courses

Lieut. G. L. Foster, R.C.R., April, 1929, to September, 1929.

No. 20792 Sgt.-Instr. K. C. McCulloch, P.P.C.L.I., April, 1929, to September, 1929.

Chemical Warfare School

Captain W. G. Colquhoun, M.C., P.P.C.L.I., October, 1929, to November, 1929.

Attachments and Exchanges

Major P. Earnshaw, D.S.O., R.C.C.S., April, 1929, to May, 1929.

Major (bvt. Lt.-Col.) W. G. Hagarty, D.S.O., R.C.A., September, 1929, to October, 1929.

Major (bvt. Lt.-Col.) A. E. Harris, R.C.A., January, 1930, to February, 1930.

Captain J. V. Williams, M.C., R.C.A.M.C., October, 1928, to February, 1929.

Captain W. G. Colquhoun, M.C., P.P.C.L.I., July, 1929, to September, 1929.

Lt.-Col. S. Tamblyn, D.S.O., O.B.E., R.C.A.V.C., November, 1929, to February, 1930.

Captain G. P. Morrison, R.C.A., October, 1929, to April, 1930.

Lieut. and Captain (local Major) J. K. Lawson, R.C.R., April, 1929, to April, 1931.

Captain W. J. Home, M.C., R.C.R., September, 1928, to August, 1930.

Lieut. J. R. Sparling, R.C.A.S.C., October, 1928, to September, 1930.

Lieut. (bvt. Capt.) J. H. Carvosso, M.C., P.P.C.L.I., September, 1928, to August, 1930.

COURSES IN CANADA

Staff College Preparatory Course

A course for officers preparing for the examination for admission to the Staff Colleges at Camberley and Quetta was held at the Royal Military College, Kingston, from October 1, 1929, to February 28, 1930. This course was attended by seven officers, all of whom competed at the examination for the three vacancies allotted to Canada. In addition, four officers of the Royal Canadian Air Force attended for instruction until the end of December, 1929.

Long Course

This course is held at the Royal Military College, Kingston, and is designed to qualify officers of the Non-Permanent Active Militia for commissions in the Permanent Force. Two candidates qualified at the course which commenced in February, 1929, and concluded in May, 1929. Three candidates attended the course which commenced in February, 1930.

Refresher Course

In conjunction with the Long Course, a Refresher Course was held for junior officers of the Permanent Force, which was attended by one officer of the Royal Canadian Signals.

Royal Canadian School of Military Engineering

Courses for Field Works Instructors and Military Foreman of Works were held for personnel of the Royal Canadian Engineers. A total of five non-commissioned officers attended.

Signal and Small Arms Courses

See under "Signal Training" (page 29) and "Small Arms Training" (page 31), respectively.

Militia Staff Course

The Militia Staff Course is designed to train officers of the Non-Permanent Active Militia for employment in appointments on the Staff of Formations in the Field.

The Practical Portion of the seventh post-war course of twelve days' duration was held at the Royal Military College, Kingston, Ont., for candidates from Eastern Canada, and at Sarcee Camp, Alberta, for candidates from Western Canada, during the summer of 1929. Fifty-eight officers qualified at the former and fifteen at the latter. In addition, three officers attended in the East and six in the West as a Refresher Course.

The Theoretical Portion of the eighth post-war course, which consists of a series of lectures, was carried out in the several districts during the winter months; 163 officers attended the written examinations and many others attended the lectures from time to time.

Examination for Promotion to Rank of Colonel, Non-Permanent Active Militia

A special practical examination of three days' duration was held following the Practical Portion of the Militia Staff Course at Kingston, Ont., and Sarcee Camp in order to qualify Lieutenant-Colonels of the Non-Permanent Active Militia for promotion to the rank of Colonel. Nine candidates attended the examination at Kingston and three attended at Sarcee, all of whom qualified.

Cookery Course

A course in cookery for personnel of the Permanent Force was held at Winnipeg, Man. This course was of six weeks' duration and was attended by six candidates.

Qualifying and Specialists' Courses

Courses were held for personnel of the Non-Permanent Active Militia at Royal and Permanent Schools as follows:—

(For Signals and Small Arms see under reports of these respective branches.)

Military District No.	Schools	Dates		Average Numbers Attending	
		From	To	Officers	Other Ranks
2	Royal Canadian School of Cavalry, Toronto.....	4-11-29	23-12-29	1	
2	" " " "	25-11-29	1- 3-30	4	1
2	" " " "	6- 1-30	15- 2-30	9	17
4	" " " " St. Johns.....	14-10-29	23-11-29	6	4
4	" " " " "	25-11-29	7-12-29	3	16
4	" " " " "	6- 1-30	1- 3-30	7	10
10	" " " " Winnipeg.....	6- 1-30	1- 3-30	7	17
13	" " " " Calgary.....	25-11-29	7-12-29	1	
13	" " " " "	6- 1-30	15- 2-30	16	27
3	" " " " Artillery, Kingston.....	14-10-29	7-12-29	4	9
3	" " " " "	6- 1-30	1- 3-30	7	11
6	" " " " "	11-11-29	30-11-29	2	6
6	" " " " "	3- 3-30	22- 3-30	2	
10	" " " " Winnipeg.....	14-10-29	7-12-29	5	11
10	" " " " "	6- 1-30	1- 3-30	7	9
11	" " " " Esquimalt.....	11-11-29	30-11-29	2	5
6	Royal Canadian School of Military Engineering, Halifax.....	9- 7-29	3-11-29		2
6	Royal Canadian School of Military Engineering, Halifax.....	15- 8-29	15- 1-30		3
1	Royal Canadian School of Infantry and Machine Guns, London, Infantry.....	14-10-29	23-11-29	1	
1	Royal Canadian School of Infantry and Machine Guns, London, Infantry.....	28-10-29	9-12-29	6	4
1	Royal Canadian School of Infantry and Machine Guns, London, Infantry.....	6- 1-30	15- 2-30	21	26
2	Royal Canadian School of Infantry and Machine Guns, Toronto, Infantry.....	13- 1-30	22- 2-30	16	42
4	Royal Canadian School of Infantry and Machine Guns, St. Johns, Infantry.....	20- 1-30	1- 3-30	7	6
5	Royal Canadian School of Infantry and Machine Guns, Quebec, Infantry.....	11-11-29	23-11-29	1	
5	Royal Canadian School of Infantry and Machine Guns, Quebec, Infantry.....	3- 2-30	15- 3-30	14	6
6	Royal Canadian School of Infantry and Machine Guns, Halifax, Infantry.....	21-10-29	30-11-29	9	
6	Royal Canadian School of Infantry and Machine Guns, Halifax, Infantry.....	24- 2-30	8- 3-30	1	
10	Royal Canadian School of Infantry and Machine Guns, Winnipeg, Infantry.....	18-11-29	30-11-29	5	
10	Royal Canadian School of Infantry and Machine Guns, Winnipeg, Infantry.....	6- 1-30	15- 2-30	9	18
11	Royal Canadian School of Infantry and Machine Guns, Esquimalt, Infantry.....	7-10-39	16-11-29	6	10
11	Royal Canadian School of Infantry and Machine Guns, Esquimalt, Infantry.....	27- 1-30	8- 3-30	7	16
1	Royal Canadian School of Infantry and Machine Guns, London, Machine Guns.....	6- 1-30	15- 2-30	3	3
2	Royal Canadian School of Infantry and Machine Guns, Toronto, Machine Guns.....	13- 1-30	23- 2-30		7
5	Royal Canadian School of Infantry and Machine Guns, Quebec, Machine Guns.....	3- 3-30	15- 3-30	1	2
6	Royal Canadian School of Infantry and Machine Guns, Halifax, Machine Guns.....	27- 1-30	8- 3-30		5
10	Royal Canadian School of Infantry and Machine Guns, Winnipeg, Machine Guns.....	6- 1-30	15- 2-30	4	18
11	Royal Canadian School of Infantry and Machine Guns, Esquimalt, Machine Guns.....	27- 1-30	8- 3-30	5	20
1	R.C.A.S.C. School of Instruction, London.....	14-10-29	22-11-29	1	3
6	" " " " Halifax.....	4-11-29	13- 1-30	8	
6	" " " " "	27- 1-30	8- 3-30	1	9
10	" " " " Winnipeg.....	14-10-29	7-12-30	1	8
10	" " " " "	27- 1-30	15- 3-30	1	1
11	" " " " Esquimalt.....	27- 1-30	15- 3-30	1	

Special Qualifying Course of Instruction (Infantry)

4	Infantry, at Sherbrooke, Que.....	5- 2-30	15- 4-30	9	.....
	" Three Rivers, Que.....	5- 2-30	15- 4-30	8	.....

In addition to above, the Provisional Schools conducted for the various arms were:—

Military District No.	Arm	Number of Schools	Average Number Attending	
			Officers	Other Ranks
2	Cavalry.....	1	6	18
3	".....	3	18	17
10	".....	2	11	16
11	".....	1	3	15
1	Proficiency in Riding.....	1	6	.....
2	".....	1	2	20
11	".....	1	12	.....
1	Artillery.....	2	17	19
2	".....	2	4	20
3	".....	1	5	13
4	".....	1	7	21
5	".....	2	7	10
6	".....	3	11	44
7	".....	1	9	14
10	".....	2	7	8
11	".....	5	23	42
1	Engineers.....	1	3	13
2	".....	1	.....	21
4	".....	1	10	7
12	".....	2	2	20
1	Infantry.....	9	51	141
2	".....	11	64	146
3	".....	16	94	94
4	".....	2	11	23
5	".....	1	2	9
6	".....	1	4	7
7	".....	1	.....	21
10	".....	4	23	42
11	".....	4	24	85
12	".....	2	27	22
13	".....	3	32	50
1	Machine Guns.....	2	10	11
2	".....	1	10	2
3	".....	2	12	20
6	".....	2	10	14
7	".....	1	10	9
11	".....	3	11	22
1	Canadian Army Service Corps.....	1	5	12
2	".....	2	12	13
3	".....	1	5	2
6	".....	1	5	4
7	".....	1	6	3
10	".....	1	5	2
11	".....	2	12	24
12	".....	1	6	18
2	Canadian Army Medical Corps.....	3	1	37
4	".....	2	29	.....
11	".....	2	10	18
12	".....	1	5	8
2	Cadet Instructors.....	4	.....	150
4	".....	3	.....	16
4	".....	2	.....	29
5	".....	1	.....	63
6	".....	2	.....	24
7	".....	1	.....	22
10	".....	2	.....	50
11	".....	1	.....	20
12	".....	1	.....	32
13	".....	1	.....	26
3	Buglers and Trumpeters.....	1	.....	8
.....			659	1,637

The number of officers and other ranks who obtained certificates at these schools and at Camp Schools is shown in statements appearing on pages 22 and 24.

Staff Tours and Tactical Exercises

Staff Tours and Tactical Exercises were carried out throughout the year under arrangements made by District Officers Commanding.

Promotion Examinations (P.F.)

A total of eleven officers presented themselves at the written examination held in October, 1929; of this number two qualified in one or more subjects for the rank of Major and five qualified for the rank of Captain. Twenty-four candidates sat at the March, 1930, examination; of this number nine qualified in one or more subjects for the rank of Major and seven qualified for the rank of Captain.

Foreign Languages

Interpretership Examinations in French for officers and Gentlemen Cadets, Royal Military College, were held under the regulations of the British Civil Service Commissioners at centres in Canada in June, 1929, and January, 1930, at which two officers and four Gentlemen Cadets qualified as interpreters as follows:—

1st Class, 1; 2nd Class, 5.

Canadian Officers' Training Corps

In addition to the annual training of C.O.T.C. Contingents as shown under "Training" above, there was a very satisfactory attendance of Cadets at the half-yearly examination for Certificates "A" and "B," as shown in the summary of results given on page 26.

The former certificate qualifies a candidate for a commission in the Non-Permanent Active Militia and the latter is equivalent to a certificate for the rank of Captain, Non-Permanent Active Militia, and exempts the holder from the Test Examination for entrance to the Long Course.

C.O.T.C. Candidates																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</
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*9 Refresher.
†5 less Subject "R"

*9 Refresher. f5 less Subject "R"

COURSES HELD IN ENGLAND

Chemical Warfare School.....	3 "QI"
Netheravon S.A.S. (Vickers M. Gun).....	1 "Distinguished"
18th S.A.S. Tech. Short Course, Mil. College of Science.....	1 "Qualified"
Gunnery Staff Course.....	1 "66 ⁸⁺¹ "

Grand Total.....	2,849
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RETURN OF CERTIFICATES OF QUALIFICATION GRANTED BETWEEN 1ST APRIL, 1929, AND 31ST MARCH, 1930—*Concluded*

WARRANT OFFICERS, NON-COMMISSIONED OFFICERS AND MEN

[illegible]

MD	Contingent	Strength		Syllabus	Certificate "A"				Certificate "B"			
					Practical		Written		Practical		Written	
		Officers	Other Ranks		Attend	Passed	Attend	Passed	Attend	Passed	Attend	Passed
1	University of Western Ontario.....	17	170	Infantry.....	17	13	13	7	7	7	6	1
	Ontario Agricultural College.....	2	38	Medical.....	15	15	15	14	6	5	4	3
2	University of Toronto.....	26	307	Infantry.....	6	6	6	4	5	4	4	2
	Queen's University.....	24	164	Artillery.....	52	5	5	2	1	1	1	1
				Medical.....				28	22	22	25	8
				Infantry.....	33	30	30	22	12	11	8	4
				Medical.....	52	46	46	39				
				Cavalry.....	16	15	15	7	4	4	4	2
4	McGill University.....	16	81	Engineers.....				2	1	1	1	1
	University of Bishops College.....	4	52	Signals.....	8	8	5	9	6	6	5	3
	Loyola College.....	6	104	Infantry.....	14	14	14	9	4		2	1
	University of Montreal.....	8	105	Infantry.....	10	6	6	2				
				Signals.....	27	27	22	14				
5	Laval University.....	6	52	Infantry.....					1	1	1	0
6	Nova Scotia Technical College.....	3	45	Engineers.....	25	18	8	0	7	7	5	2
7	Dalhousie University.....	2	91	Infantry.....	17	17	17	15	5	5	4	0
10	University of New Brunswick.....	10	166	Infantry.....	21	19	17	11				
	University of Manitoba.....	19	235	Infantry.....	59	51	50	40	12	12	13	4
11	British Columbia University.....			Medical.....	35	27	25	18	12	10	8	3
12	University School Cadet Corps.....			Infantry.....	11	11	10	10	11	11	9	4
	University of Saskatchewan.....	18	190	Infantry.....	46	46	36	29	7	7	4	3
				Infantry.....	11	9	8	4				
13	Alberta University.....	25	324	Signals.....	31	27	27	25	10	8	7	1
				Infantry.....	1	1	1	1				
				Medical.....	66	47	45	26	5	5	5	1
					12	11	9	9				

SIGNALS

General

Continued progress during the year in signal training of personnel of the Royal Canadian Signals and regimental signallers of the Permanent Force and Non-Permanent Active Militia has been made.

With two exceptions each Military District has now an officer of the Royal Canadian Signals on its staff as District Signal Officer. Due to the shortage of officers it has been necessary to combine the duties of District Signal Officer in Military Districts No. 4 and No. 5, and Military Districts No. 6 and No. 7 under one officer for each of the two districts.

No increase in the Instructional Cadre (Signals) has been effected during the year under review, but the need of further assistant instructors in signalling in all districts is apparent.

Royal Canadian Signals

The limited establishment of the Corps at the end of the fiscal year was 39 officers and 264 other ranks. The strength of the Corps on that date was 27 officers and 226 other ranks, whose duties are distributed as follows:—

	Officers	Other Ranks
District Signal Officers and Instructional Cadre (Signals).....	9	20
Permanent Force—		
M.D. Signals Office and S.I. & T.D.	3	6
R.C. Signals Depot.....	5	51
Royal Canadian School of Signals.....	1	2
Northwest Territories and Yukon Radio System.....	2	34
Royal Canadian Air Force.....		9
Civil Government Air Operations.....	6	62
Air Mail Routes.....	1	42
Total.....	27	226

Regimental Signallers of Permanent Force Units

The Annual Technical Inspection and Classification of Signallers of Permanent Force units were, on the whole, satisfactory. The results for the year under report are tabulated below. There is still a great need of junior officers being trained in units in order that they may supervise and encourage signal training within their units.

Unit	Classified		Under Training	
	Officers	Other Ranks	Officers	Other Ranks
"A" Squadron R.C.D's.....		2	1	4
"B" Squadron R.C.D's.....		4		
"A" Squadron, L.S.H. (R.C.).....		3		
"B" Squadron, L.S.H. (R.C.).....		2		
"A" Battery, R.C.H.A.....		Not classified		
"B" Battery, R.C.H.A.....		Not classified		
"C" Battery, R.C.H.A.....		11		
1st Heavy Battery, R.C.A.....		8		3
2nd Heavy Battery, R.C.A.....		5		2
3rd Medium Battery, R.C.A.....		Not classified		
5th Heavy Battery, R.C.A.....		3		4
"A" Company, The R.C.R.....		6		
"B" Company, The R.C.R.....		9		1
"C" Company, The R.C.R.....		3		3
"D" Company, The R.C.R.....		3		
"A" Company, P.P.C.L.I.....		9		1
"B" Company, P.P.C.L.I.....		6		
"A" Company Royal 22e Regt.....		6	1	1
		80	2	19

*Results of Annual Technical Inspection and Classification of Signal Sections,
Non-Permanent Active Militia*

The results for the year ending March 31, 1930, are as follows:—

(a) VISUAL TELEGRAPHY

Military District	Number of Classi- fications	Signallers presented	Number classified
No. 1.....	30	322	306
No. 2.....	42	381	369
No. 3.....	31	318	298
No. 4.....	28	188	161
No. 5.....	23	175	157
No. 6.....	32	252	216
No. 7.....	16	143	125
No. 10.....	24	109	104
No. 11.....	17	113	105
No. 12.....	27	143	98
No. 13.....	27	96	90
Totals.....	297	2,240	2,029

(b) LINE TELEGRAPHY

No. 1.....	9	22	22
No. 2.....	15	72	64
No. 3.....	11	36	32
No. 4.....	4	9	9
No. 5.....	10	16	16
No. 6.....	4	10	10
No. 7.....	3	10	10
No. 10.....	12	27	25
No. 11.....	4	13	13
No. 12.....	8	12	10
No. 13.....	1	1	1
Totals.....	81	228	212

(c) WIRELESS TELEGRAPHY

No. 1.....	3	3	3
No. 7.....	2	2	2
No. 10.....	1	1	1
Totals.....	6	6	6

Royal Canadian School of Signals

The Royal Canadian School of Signals operated a summer school at Camp Borden, Ont., during the summer of 1929. Royal Military College and Canadian Officers Training Corps Cadets were attached for training in visual, line and wireless telegraphy, qualifying courses were held for officers and non-commissioned officers of Canadian Signals and courses were held for Permanent Force and Non-Permanent Active Militia personnel qualifying for Instructors and Assistant Instructors certificates in visual telegraphy.

The following table shows the attendance and results of these classes:—

	Officers	Other Ranks
(a) Attendance—		
Permanent Force.....		5
Non-Permanent Active Militia.....	8	66
R.M.C. and C.O.T.C. Cadets.....	18	
Totals.....	26	71
(b) Qualifications Obtained—		
Instructors and Assistant Instructors, Visual Telegraphy.....	4	33
Qualifying—		
Captain.....	2	
Lieutenant.....	1	
Sergeants.....		16
R.M.C. and C.O.T.C. cadets—		
Operator Visual Class I.....	10	
Operator Line Class I.....	4	
Operator Wireless Class I (Partial).....	4	
Totals.....	25	49

Provisional Schools of Signals

During the year the following provisional schools were conducted:—

Visual Telegraphy.....	81
Line Telegraphy.....	12

The number of certificates awarded as a result of above schools is as follows:—

	Officers	Other Ranks
(a) Visual Telegraphy—		
Class I Special.....	1	21
Class I.....	41	581
Class II.....	2	262
Class III.....		84
Total Visual Telegraphy.....	44	948
(b) Line Telegraphy—		
Class I.....	9	46
Class II.....	3	27
Total Line Telegraphy.....	12	73

At local headquarters, when an evening provisional school of signals is conducted, instruction in signalling is arranged for cadets who are twelve years of age or over and are enrolled members of an authorized Cadet Corps.

Boys who undergo this training make particularly desirable recruits for units of the Canadian Signals and are joining the non-permanent signal service in increasing numbers each year.

During the year under report the following number of cadets were awarded certificates:—

1st year (Semaphore).....	2,384
2nd year (Morse).....	277
3rd year (advanced).....	61
Total.....	2,722

Award of Trophies

The Signallers Challenge Cup, for annual competition between regimental signal sections of non-permanent cavalry and infantry units, was won for the year 1929 by The Toronto Regiment, Military District No. 2. This is the second year in succession that this unit has won the Cup.

The Cavalry Signallers Challenge Cup, presented by the Canadian Cavalry Association for annual competition between regimental signal sections of the non-permanent cavalry, was won for the year 1929 by the Manitoba Mounted Rifles, Military District No. 10.

SMALL ARMS SCHOOL

During the period under review, training in the rifle, bayonet, light automatic, machine gun, revolver, section leader training and anti-gas measures was carried out in the Permanent and Non-Permanent Active Militia.

The following annual range courses were fired:—

Permanent Active Militia

Recruits of cavalry and infantry fired an elementary course in the rifle and light automatic. Recruits of other units fired a modified course.

Trained soldiers of cavalry and infantry fired the advanced classification course with rifle, light automatic and Vickers machine gun, machine gun practices being introduced for the first time into the range course of cavalry units. Recruits and trained soldiers of other units fired a shorter course more suitable to their requirements.

The results obtained in the foregoing range course maintained the satisfactory standard of the previous year.

Non-Permanent Active Militia

The program of weapon training is published in "Memorandum for Camps of Instruction, Part I," the various courses being based on those laid down for the British Territorial Army.

The proportion of N.P.A.M. exercised in range practices, in relation to the total of all ranks actually trained and eligible to fire, was 59 per cent, an increase of 3 per cent over the percentage for 1928.

The total number of firers represented by the above proportion was 18,665 (an increase of 1,767), and includes the following arms of the service: Cavalry, Engineers, Signals, C.O.T.C., Infantry, Machine Gun Corps, and C.A.S.C.

The weapons used were the rifle, Vickers machine gun and light automatic, the greatest relative improvement being shown in the last named.

BEST SHOT BADGES

Best Shot Badges for the year 1929 were awarded to the best shot in the Royal Military College and in each squadron, battery, company, independent troop or headquarters wing of cavalry, artillery, engineers, corps of signals, officers' training corps, infantry, machine gun corps and army service corps of the Non-Permanent Active Militia.

The badge is awarded to the non-commissioned officer or man obtaining the highest score in the classification practices of the annual rifle course and the names of winners are published in Militia Orders. Six hundred and seven such badges were awarded for 1929, being an increase of ninety-nine over the number awarded the previous year.

CAMBRIDGE CHALLENGE BOWL COMPETITION

The Cambridge Challenge Bowl was won for the second year in succession by Headquarters, the Royal Canadian Regiment, London, with an average score of 110·7.

This trophy was donated by officers of His Majesty's Regular Army on leaving Canada in 1904, and is awarded to the squadron, battery, company, headquarters or detachment of any unit of the Permanent Force having a strength of thirty all ranks or over obtaining the highest average in the annual rifle course. To be eligible 80 per cent of the competing unit must take part in the competition.

KING'S MEDAL, 1929

The King's Medal for the champion shot of the Military Forces of the Dominion of Canada was won by Lieutenant D. T. Burke, the Governor General's Foot Guards.

RIFLE ASSOCIATIONS

On March 31, 1929, there were in existence 188 military rifle associations and 83 civilian rifle associations.

The Dominion of Canada Rifle Association and all Provincial Rifle Associations held prize meetings during the period under review.

CANADIAN RIFLE TEAM

The team which represented Canada at the National Rifle Association meeting at Bisley, England, in 1929, was an outstanding success. The premier team competition, the Kolapore Cup, was won, and in addition individual members won the Prince of Wales Trophy, the Corporation of London Cup, and the Elkington Aggregate. The greatest achievement was the winning of the King's Prize and the Grand Aggregate by Lt.-Col. R. M. Blair, V.D., the Seaforth Highlanders of Canada, who in each competition had to shoot off a tie with another Canadian.

COURSES AT THE CANADIAN SMALL ARMS SCHOOL
AT CONNAUGHT RIFLE RANGE

Number and Nature of Course	Passed	Failed
Course No. 89—Rifle (Service and Miniature)—		
Cadet Instructors.....	19	
Course No. 90—Rifle and Light Automatic, N.P.A.M.—		
Officers.....	28	
W.Os. and N.C.Os.....	22	
Course No. 91—Vickers Machine Gun, Range-finder and Revolver, N.P.A.M.—		
Officers.....	16	
W.Os. and N.C.Os.....	17	2
Course No. 92—Rifle and Light Automatic, N.P.A.M.—		
Officers.....	14	
W.Os. and N.C.Os.....	7	
Course No. 93—Vickers Machine Gun, Range-finder and Revolver, N.P.A.M.—		
Officers.....	13	
W.Os. and N.C.Os.....	8	1
Course No. 94—Anti-Gas Measures, P.F.—		
Officers.....	6	
W.Os. and N.C.Os.....	15	
Course No. 95—Rifle, Light Automatic and Section Leader Training, P.F.—		
Officers.....	2	
W.Os. and N.C.Os.....	13	
Course No. 96—Vickers Machine Gun, Range-finder and Revolver, P.F.—		
Officers.....	10	
W.Os. and N.C.Os.....	22	
Course No. 97—Artillery Staff Course, P.F.—		
Officers.....	1	
W.Os. and N.C.Os.....	7	

AT SARCEE CAMP

Number and Nature of Course		Passed	Failed
Course No. 98—Rifle (Service and Miniature)— Cadet Instructors.....		8	
Course No. 99—Rifle and Light Automatic, N.P.A.M.— Officers.....		8	
W.Os. and N.C.Os.....		5	2
Course No. 100—Vickers Machine Gun, Range-finder and Revolver, N.P.A.M.— Officers.....		7	
W.Os. and N.C.Os.....		16	3
Course No. 101—Rifle, Light Automatic and Section Leader Training, P.F.— Officers.....		1	
W.Os. and N.C.Os.....		3	
Course No. 102—Vickers Machine Gun, Range-finder and Revolver, P.F.— Officers.....		1	
W.Os. and N.C.Os.....		14	

NON-PERMANENT ACTIVE MILITIA, TRAINING AND SCHOOLS OF INSTRUCTION
COMPARISON FOR PRE AND POST WAR

Serial No.	(a)	Pre-War		Post-War					
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		1913-1914	1914-1915	1924-1925	1925-1926	1926-1927	1927-1928	1928-1929	1929-1930
1	Establishment—								
	Personnel.....	76,606	70,064	122,600	121,183	138,316	136,705	134,967	123,843
2	Strength—								
	Personnel.....	55,282	59,004	50,492	49,075	49,075	52,326	52,248	51,831
	Numbers trained at local H.Q.—								
3	Personnel.....	22,891	24,597	21,800	23,572	20,616	22,327	24,094	22,630
4	Average Period Days.....	16	16	9	9	9	9	9	9
	Numbers trained at Camp								
5	Personnel.....	32,391	34,407	6,700	6,663	4,293	11,858	16,971	18,109
6	Average Period Days.....	12	12	9	9	9	9	9	10
7	Total numbers trained.....			Not available				34,348	33,008
	Numbers qualified—								
8	Royal Schools.....	1,348	1,089	366	1,206	1,445	2,157	1,767	883
9	Camp Schools.....			256	312	411	672	938	1,230
10	Provisional Schools.....	2,949	4,548	559	2,722	2,671	2,174	3,463	5,362
11	C.O.T.C. "A".....	2	23	200	177	191	218	211	339
12	C.O.T.C. "B".....			58	45	100	48	89	44
13	Total.....	4,299	5,660	1,439	4,462	4,818	5,269	6,468	7,858
14	Funds available.....	\$2,050,000	\$2,263,000	\$1,020,000	\$1,150,300	\$1,115,700	\$1,444,300	\$1,662,100	\$1,646,100
	Expended.....	\$2,005,166	\$2,107,126	\$1,017,288	\$1,126,708	\$1,111,028	\$1,435,865	\$1,661,753	\$1,645,772

NOTE.—1. Expenditure shown is for services now covered in N.P.A.M. Sub-Votes "A" and "B".

2. From 1926 to 1929 the M.S.C. and C.S.A.S. have been included under Royal Schools. Certificates to Cadet Instructors, or to Cadets other than C.O.T.C., not included.

(3) Armament

1. Existing armament has been maintained in a serviceable condition as far as limited funds permitted, but a considerable amount of service equipment is becoming much worn due to use at annual training, and additional expenditure in this connection must be contemplated in the near future. This is particularly applicable to expensive technical stores such as dial sights, directors, etc.

2. The reserves of Coast Defence and Field Army Artillery ammunition are lower than a year ago. Provision has been made for the replacement of a large proportion of the year's expenditure, but the funds allotted are not sufficient to permit of replacement being carried out in full.

3. The anti-aircraft equipment in use in this country is obsolete in the British service, and the training possible is such as will, only in a limited degree, maintain the organization and efficiency of Anti-Aircraft Sections. Up to the present it has not been possible to consider purchase of modern equipment owing to the limited funds available.

4. The 3rd Medium Battery, R.C.A., has been issued with lorries to replace horses for training. These lorries, which have a chassis of commercial type, were used at Petawawa Camp during the training season of 1929-30 for the training of Medium Batteries, Non-Permanent Artillery. The change proved to be a decided success, as it enabled a greater amount of training to be carried out than was possible with the limited number of horses on Permanent Force charge. Mechanized traction is considered to be a saving in the long run as compared with the maintenance of horsed batteries. So organized, a battery also requires less personnel.

(4) Operation of Wireless Systems

During the fiscal year 1929-30 a total of twenty-five (25) Radio Stations were operated throughout the Dominion of Canada by the Royal Canadian Signals.

Three new stations were established during this period—two in Manitoba and one in Saskatchewan—while the station operated in conjunction with the Hudson Strait expedition was dismantled upon the cessation of operations in that vicinity.

The following list shows the distribution of the twenty-five Radio Stations:

1. *Northwest Territories and Yukon*

Aklavik, N.W.T.
Dawson, Y.T.
Edmonton, Alta.
Herschel Island, Y.T.
Mayo, Y.T.
Fort Resolution, N.W.T.
Fort Simpson, N.W.T.
Fort Smith, N.W.T.

2. *Alberta*

Grand Prairie, Alta.
High River, Alta.

3. *Saskatchewan*

Ile a la Crosse.
Lac la Ronge.
Ladder Lake.
Pelican Narrows.
Prince Albert.
Waskesiu.

4. *Manitoba*

Berens River.
Cormorant Lake.
Norway House.
Thicket Portage.
Winnipeg.
Winnipegosis.

5. *Ontario*

Camp Borden.
Ottawa.

6. *Air Mail Service.*

St. Hubert.

The Northwest Territories and Yukon Radio System

This system served to link up the Northwest Territories and the Yukon with the Dominion's chain of communications.

The Canadian National Telegraphs and the Canadian Pacific Telegraph at Edmonton are both connected by direct wires to the wireless station at West Edmonton, the southern terminal station of the system.

In addition to providing intercommunication channels between posts in the Northwest Territories and Yukon, this system transmitted a daily news bulletin from Edmonton to all stations in the Mackenzie valley. Aircraft weather reports, air mail reports, stock quotations, and similar services of vital interest to isolated posts were transmitted as requested.

By arrangement, the motorship *Baymaud* belonging to the Hudson's Bay Company, which wintered at Cambridge Bay, and the *St. Roch* belonging to the Royal Canadian Mounted Police were kept in constant touch with the main arteries of communication at Edmonton.

All stations of this system forwarded weather reports twice daily to the Meteorological Services at Toronto.

TABLE I.—TRAFFIC REPORT, THE NORTHWEST TERRITORIES
AND YUKON RADIO SYSTEM, 1929

Station	Messages Handled		Receipts	
	Sent	Received	Gross	Net
			\$ cts.	\$ cts.
Aklavik.....	1,536	648	2,061 66	1,798 00
Herschel.....	158	104	626 19	503 10
Baymaud and St. Roch.....	443	102	414 95	304 70
Dawson City.....	3,113	1,626	5,304 07	3,677 95
Alaskan Points.....	276	85	316 79	300 24
Mayo, Y.T.....	2,402	1,253	5,788 18	3,902 08
Simpson, N.W.T.....	1,796	692	2,107 80	1,708 38
Smith, N.W.T.....	2,759	1,484	4,280 22	3,540 37
Resolution, N.W.T.....	847	518	1,787 64	1,416 22
Edmonton, Alta.....	3,444	10,278	22,497 69	22,325 56
Stoney Rapids, Sask.....	189	171	1,187 68	883 98
Bathurst Inlet.....	10	12	45 64	40 03
Totals.....	16,973	16,973	46,418 51	40,409 51

The Alberta System

The radio stations at High River, Alta., and at Grand Prairie in the Peace River country were operated during the flying season in connection with forestry patrol work. These stations maintained ground to ground communication while planes equipped with R.C.S. built aircraft transmitters provided air to ground communication during flight.

The Saskatchewan System

Owing to the extension of the forestry patrol work along with important mining activities in the northern portions of the province, it was necessary to establish an additional radio station at Pelican Narrows during the spring of 1929. Three of these stations were operated during the flying season only.

The Manitoba System

Two additional low power radio stations were added to the Manitoba chain during the year, one at Berens River, and the other at Thicket Portage (mile 185 Hudson's Bay Railway). Traffic was handled by the Manitoba and Saskatchewan System chiefly for various government departments, in par-

ticular the Forestry Branch, the Parks Board, The R.C.A.F. and the Civil Government Air Operations. In addition a fair amount of commercial revenue traffic was handled between the Canadian National and the Canadian Pacific Telegraphs and outlying points in these provinces served by the radio stations.

The following table shows the amount of traffic handled during the year:—

TABLE II.—R.C.A.F. TRAFFIC REPORT, SASKATCHEWAN RADIO SYSTEM, 1929

Station	Messages Handled		Words Handled	
	Sent	Received	Sent	Received
Ile a la Crosse.....	607	182	16,636	5,405
Lac la Ronge.....	1,457	667	40,433	17,788
Ladder Lake.....	1,962	2,250	56,247	63,461
Pelican Narrows.....	859	381	23,189	10,941
Prince Albert.....	1,353	2,570	39,918	73,119
Waskesiu.....	266	187	7,645	5,257
Manitoba Transfer.....	943	1,210	24,892	32,989
	7,447	7,447	208,960	208,960

TABLE III.—COMMERCIAL TRAFFIC REPORT, SASKATCHEWAN RADIO SYSTEM, 1929

Station	Messages handled		Receipts	
	Sent	Received	Gross	Net
			\$ cts.	\$ cts.
Ile a la Crosse.....	72	41	132 06	115 38
Lac la Ronge.....	854	615	1,469 75	1,115 62
Pelican Narrows.....	195	156	468 89	345 44
Prince Albert.....	916	1,232	2,770 14	2,770 14
Waskesiu.....	106	69	139 84	120 78
Stoney Rapids.....	29	60	35 20	35 20
Manitoba Transfer.....	30	29	61 74	55 75
Totals.....	2,202	2,202	5,077 62	4,558 31

TABLE IV.—R.C.A.F. TRAFFIC REPORT, MANITOBA RADIO SYSTEM, 1929

Station	Messages handled		Words handled	
	Sent	Received	Sent	Received
Berens River.....	563	330	15,491	8,385
Cormorant Lake.....	4,786	3,241	142,126	87,927
Lac du Bonnet.....	1,729	1,424	41,759	36,873
Norway House.....	1,620	798	47,018	21,480
Winnipeg.....	4,170	7,780	108,324	224,250
Winnipegosis.....	574	237	17,279	5,835
Thicket Portage.....	302	213	9,776	5,167
Sask. Transfer.....	987	708	27,721	19,677
Totals.....	14,731	14,731	409,594	409,594

TABLE V.—COMMERCIAL TRAFFIC REPORT, MANITOBA RADIO SYSTEM, 1929

Station	Messages handled		Receipts	
	Sent	Received	Gross	Net
			\$ cts.	\$ cts.
Berens River.....	147	83	257 95	225 42
Cormorant Lake.....	30	39	47 63	45 48
Lac du Bonnet.....	10	1	9 50	6 30
Norway House.....	501	288	701 13	593 32
Winnipeg.....	331	610	926 49	894 49
Winnipegosis.....	5	.....	7 55	6 40
Thicket Portage.....	2	4	5 70	5 70
Sask. Transfer.....	1	2	3 36	3 36
Totals.....	1,027	1,027	1,959 31	1,780 47

TABLE VI.—RESULTS OF PATROLS CARRYING RADIO APPARATUS, 1929

Station	Using Radio	100 per cent successful	50 to 100 per cent successful	Less than 50 per cent successful
<i>Manitoba—</i>				
Berens River.....	4	1	2	1
Cormorant Lake.....	27	15	4	8
Lac du Bonnet.....	10	2	3	5
Norway House.....	21	16	2	2
Winnipegosis.....	16	11	3	2
<i>Saskatchewan—</i>				
Lac la Ronge.....	10	3	2	5
Ladder Lake.....	8	6	1	1
Totals.....	96	54	17	24

The Ontario System

The Radio stations at Camp Borden and Ottawa, in addition to being used as training stations, handled communications between the Depot R.C.S., the R.C.A.F. Training Centre Camp Borden, and N.D.H.Q. Ottawa.

The Ottawa station was also in communication with St. Hubert, P.Q., these stations being used in connection with the air mail services from Rimouski, P.Q.

TABLE VII.—TRAFFIC REPORT, OTTAWA-BORDEN-ST. HUBERT SYSTEM

Station	Messages handled		Words handled	
	Sent	Received	Sent	Received
Borden.....	2,539	2,181	70,599	61,025
Ottawa.....	2,805	3,281	68,551	88,049
St. Hubert.....	742	624	17,450	7,526
Totals.....	6,086	6,086	156,600	156,600

AIR MAIL SERVICES

The Royal Canadian Signals are responsible for the installation and operation of radio aids to air navigation for all air mail routes in Canada. The collection and dissemination of weather reports for air mail pilots is an important feature of this work.

The small transmitter originally installed at St. Hubert was replaced during July with a 4½ KVA transmitter designed for both telegraph and telephone transmission. By means of this station pilots using St. Hubert aerodrome are in touch with the latest radio advices concerning the weather on the Ottawa-Montreal, Montreal-Toronto, Montreal-Rimouski and Montreal-New York air mail routes. Some of the air mail planes working from St. Hubert have already been equipped with receiving sets and are carrying operators for the purpose of receiving special weather broadcasts emanating for this station.

The radio operators at St. Hubert copy the regular radio weather broadcasts from Arlington, Va., and, with the assistance of radio and teletype, advices from Rimouski, Montreal, Kingston, Toronto, London and Windsor and Albany, N.Y.

Arrangements are being made for the installation of radio beacon stations at Forest Man., Regina, Sask., Maple Creek, Sask., Lethbridge, Alta., Red Deer, Alta., and London, Ont. The radio aids to air navigation afforded by these stations should prove valuable to lighter-than-air aircraft in the future.

SHORT WAVE COMMUNICATION

During the year a small amount of service traffic has been handled with England via Australia. Owing to the skip distance effect it has frequently happened that direct communication has been interrupted between Canada and England.

Short wave experimental equipment is being despatched to certain stations of the North West Territories and Yukon Radio System. Fort Simpson installation was effected during the winter and encouraging reports of their signal strength in Dawson, Mayo, Aklavik and Edmonton have been received.

A fair percentage of departmental traffic has been handled between Ottawa and Military District No. 6, Halifax, and Military District No. 11, Victoria, B.C., in co-operation with the naval stations at Halifax and Esquimalt. This service has given satisfaction for general routine business.

Short wave communications were maintained with units of the Canadian Signals. Schedules were conducted with the following non-permanent active militia Signal units in Canada:—

- | | | |
|--------|----------|-------------------------|
| No. 22 | Company— | Edmonton, Alta. |
| No. 2 | “ | —Toronto, Ont. |
| No. 3 | “ | —Barriefield Camp, Ont. |
| No. 6 | “ | —Saint John, N.B. |
| No. 10 | “ | —Winnipeg, Man. |
| No. 17 | “ | —Port Arthur, Ont. |

(5) Physical Training and Cadet Services

PHYSICAL TRAINING

In fulfilment of the agreement with provincial educational authorities to co-operate in the physical instruction of student teachers at Normal schools and other centres, the department now maintains a staff of twenty-nine assistant instructors of the Permanent Force, who during the year under review instructed 9,841 candidates. Of these, 4,659 after completing the required course and passing an examination received certificates of competency to instruct in the exercises and games contained in the official “Syllabus of Physical Training for Schools.”

Classes are held under the supervision of the District Cadet Officers, who usually conduct the examinations and issue the certificates.

In order that these officers and assistant instructors should be kept informed as to the most recent developments in physical education, a refresher course of six weeks' duration was held at the Royal Military College during the summer months, with nine officers and twenty-one W.O's and N.C.O's in attendance.

CADET TRAINING

1. Cadet training generally continues to receive the support of educational authorities. Numbers have constantly increased until there is now a total of 947 active units with a strength of over 130,000 Cadets, distributed by provinces as under:—

Alberta.....	5,806
British Columbia.....	6,109
Manitoba.....	3,020
New Brunswick.....	2,915
Nova Scotia.....	3,347
Ontario.....	37,496
Prince Edward Island.....	701
Quebec.....	66,499
Saskatchewan.....	4,414
	<hr/>
	130,307

The Earl Grey Trophy, awarded annually to the province having the largest number of Cadets in proportion to boys attending school, continues to be held by the province of Quebec.

2 In the training of cadets importance is attached to instruction in first aid to the injured. District Medical Officers are, wherever possible, forming classes of instruction in this important subject; the Canadian Branch of the St. John Ambulance Association assists in this training by organizing competitions for which it offers trophies and medals, and also by donating this year one thousand copies of the official text-book, which is supplied in either English or French as required.

3. Signalling is also popular with Cadets, and each year several hundred boys are instructed in this subject.

4. Miniature rifle practice also receives attention, and interest in this branch of training is well maintained. In the matches conducted during the winter months by the Dominion of Canada Rifle Association 305 Cadet teams fired, while in the Empire-wide match for His Majesty the King's Trophy 5,751 Canadian boys took part. The Canadian team of 3,000 boys lost His Majesty's Trophy by a small margin to South Africa, with the British Isles in third place. In all 40,510 boys, representing all parts of the Empire, competed in this match.

In this event a shield awarded to the best Senior Cadet Corps of the Empire was won by the Christian Brothers College Cadets, No. 98, Kimberley, South Africa, with Hamilton Central Collegiate Institute in second place. A similar shield for the best Junior Cadet Corps was won by the Royal Marine Volunteer Cadet Corps, Deal, with No. 134, Calgary Public Schools Cadet Regiment (Central School), Calgary, in second place.

Other trophies are the Earl Jellicoe Sword and the Earl Haig Sword. The first was won by No. 403, Millbrook Cadet Corps, Millbrook, Ont., with No. 819, Portland Cadet Corps, Saint John, N.B., third. The Earl Haig Sword was won by the Streete Court School, Westgate-on-Sea, Kent, with No. 134, Calgary Public Schools Cadet Regiment (Upper Hillhurst School), Calgary, Alta., second, and No. 134, Calgary Public Schools Cadet Regiment (Sunnyside Bungalow School), Calgary, third.

In these competitions, Canadian boys had the distinction of winning more medals than the competitors from all other parts of the Empire combined. The figures follow:—

	Canada	Rest of Empire
Silver Medals.....	72	35
Bronze Medals.....	172	134

Visiting Cadets

During the summer of 1929 a party of fifteen Cadets of O.T.C. contingents from England and Scotland visited Canada and took part in the matches of the D.C.R.A. It is understood that a similar detachment will come out in 1930.

(6) Historical Section

COLLECTION, CLASSIFICATION AND DISPOSAL OF DOCUMENTS

During the year a number of wooden shelves on which many of the records have hitherto been accommodated were replaced by steel cabinets and the erection of a fire-proof vault made it possible to remove the original copies of War Diaries and the more valuable records into a place of safety.

A large amount of historical material relating to the Great War, consisting of reports, operation orders, maps, aeroplane photographs, correspondence and other matter dealing with operations in the field, mobilization, equipment and embarkation of the C.E.F., has been received from ex-officers of the Canadian Expeditionary Force.

A large quantity of C.E.F. documents have been sorted and classified, 2,289 new files opened, contents indexed and made available for reference.

A block of 1,855 files which originated in the office of the Overseas Minister, London, England, during the war was taken over from the Directorate of Records and precised and indexed for reference purposes.

The triplicate copies of the War Diaries of five C.E.F. units have been checked, and completed for the use of regimental historians; 670 missing folios were copied from originals; the diaries were transferred to the custody of the perpetuating Militia units.

PERPETUATION OF C.E.F. UNITS AND AWARDS OF BATTLE HONOURS

Two hundred and forty-five lists of Battle Honours covering 82 regiments of the Canadian Permanent and Non-Permanent Active Militia and 163 units of the C.E.F. were prepared for submission to His Majesty the King for approval. Claims for Battle Honours, not provided for under the regulations, were investigated and reported upon. The services of Canadian Pioneer, Labour, Infantry Works and Railway Battalions in the C.E.F. were investigated with a view to determining eligibility for honours. Minutes and reports of the Battle Honours Committee were drafted and detailed information supplied as called for by the Committee.

COMPILATION OF AN HISTORICAL ACCOUNT OF THE CANADIAN FORCES IN THE GREAT WAR

The preparation of material and maps for the first general volume of the official history has been continued.

Assistance has been given to regimental historians; the typescript of the history of the 20th Battalion, C.E.F. has been checked and comments forwarded to the Historian; material has also been copied and information

supplied to the Historians of the 24th, 44th, 46th, 78th Infantry Battalions, 2nd C.M.R. Battalion, No. 1 Canadian General Hospital and 8th Battalion, Canadian Railway Troops.

The compilation of a precis and chronological record and index of documents and events relating to the participation of Canada in the Great War, has been undertaken; this when completed will be an encyclopaedia of outstanding events and legislation passed in connection with the War.

Four maps were compiled to illustrate the four principal phases of the operations of the Canadian Corps at Passchendaele, October and November, 1917.

Progress has been made in indexing, checking and consolidating statistics compiled in the Record Office covering all enlistments and casualties in the C.E.F.

PREPARATION OF HISTORICAL MONOGRAPHS, NARRATIVES, ETC., IN CONNECTION WITH THE MILITARY HISTORY OF CANADA

Short histories of five units of the Canadian Militia were compiled and forwarded to the regiments concerned.

A record of service of all Canadian Veterinary Officers who served with the Canadian Contingents in South Africa together with a short history of the Canadian Army Veterinary Services, was prepared.

A report on Arnold's march from Cambridge, Mass., to Quebec in 1775 was compiled.

Statements have been prepared and research carried out in connection with the alliance of Canadian Militia regiments with regiments of the British and Dominion armies. Proposed designs of badges and devices for various militia regiments have been examined as to historical significance, and reported upon.

THE COMPILATION OF HISTORICAL DATA RELATING TO THE WAR FOR THE HISTORICAL SECTION (MILITARY BRANCH) COMMITTEE OF IMPERIAL DEFENCE, LONDON

Draft chapters of the British Official History covering the Actions of St. Eloi Craters and Mount Sorrel and Hooge were read, and comments were collected from over fifty senior officers of the Canadian Corps who were present at these operations. The comments were checked and collated, important extracts copied and sent with the notated draft chapters to the British Official Historian. Maps were prepared to illustrate the positions of Canadian units at the battle of Mount Sorrel, and 72 Operation Orders and Reports on Operations were selected, copied and sent to the British Historian.

In addition to the above, and for the further information of the British Historian, a monograph on the Growth and Control of the Overseas Military Forces of Canada was compiled; outlining the various phases in the evolution of the C.E.F.; covering all Arms and Services, Commands and Appointments; showing strengths, distribution, organization and administration of Canada's contribution during the Great War.

SUPPLY OF INFORMATION TO HISTORICAL INVESTIGATORS AND THE FACILITATION OF THEIR RESEARCHES

Historical data supplied under this heading included:—

Biographical accounts of Sir Edward Kemp, General Sir William Otter and Brigadier-General R. J. F. Hayter.

Notes in connection with the tenth anniversary of the Alcock-Brown flight from Newfoundland to Ireland.

Historical notes on Canadian competition in rifle shooting at Bisley.

A comparative statement of figures relating to the cost in lives and money of the Great War and ten other recent wars.

Statistics regarding allied armies from July to November, 1918, including combatant and ration strength, maximum advance in miles, captures in men and guns.

A statement showing extent of participation in the Great War by all nations.

Data on official action taken in Canada on announcement of war made by Great Britain in 1914.

Notes and published statements relating to the Armistice, November, 1918.

Memorandum relating to university students in the Great War.

A complete list of Canadian Highland battalions raised during the war which proceeded to England.

A monograph with quotations from authorities on "The reasons for undertaking and continuing the Flanders Offensive, July-November, 1917."

Statement of ammunition, explosives, food and other supplies used by the Canadian forces during the war.

A list of senior officers serving in France with the Canadian Corps during period July to November, 1918, showing, rank, decorations, and appointments held.

A list of all Canadian units which served on the Western Front. Prepared for the Canadian War Memorial being erected on Vimy Ridge.

(b) The Royal Canadian Air Force

The direction and control of aeronautics in Canada, both civil and military, come under the jurisdiction of the Department of National Defence. The powers and duties involved are exercised under the direction of the Minister by four separate branches of the Air Services, namely, the Directorate of Civil Government Air Operations, the Controller of Civil Aviation, the Aeronautical Engineering Division, and the Royal Canadian Air Force.

The first three of these branches are responsible directly to the Deputy Minister, and information regarding them may be found in the "Civil Aviation" section of this report, and also in the separate "Report on Civil Aviation, 1929," which can be obtained by application to the Secretary, Department of National Defence, Ottawa.

The Royal Canadian Air Force

The Royal Canadian Air Force is the Military Branch of the Air Services. The Chief of the General Staff, through the Director, R.C.A.F., administers and controls all military air operations.

The Royal Canadian Air Force has the following composition:--

(a) The Active Air Force.

(b) The Reserve.

(a) The Active Air Force

The establishment of the Permanent Active Air Force of Canada consists of 204 officers and 732 airmen permanently embodied for continuous service, and available for general service, including training and operations for civil government departments. The strength of the Royal Canadian Air Force was 175 officers and 669 airmen on March 31, 1930. Out of this total about half were attached for duty with the other branches of the Air Services.

(b) The Reserve

The policy of the department is to create a reserve list consisting of personnel qualified in the several branches of Air Force duties.

The Reserve will be inactive except for such special courses as may be authorized by the Honourable the Minister, though personnel on the Reserve will be liable to call for duty with the Active Air Force.

Headquarters, R.C.A.F.

R.C.A.F. Headquarters is organized as follows:—

- Director, R.C.A.F.
- Assistant Director, R.C.A.F.
- Staff Officer Personnel.
- Staff Officer Equipment.
- Staff Officer Organization.
- Staff Officer Training.
- Staff Officer Operations and Intelligence.
- Staff Officer Regulations.

R.C.A.F. Station, Vancouver

R.C.A.F. Station, Vancouver, B.C.—The station is well equipped in regard to hangars, shops, and slipways. Barrack accommodation and housing for the personnel are required.

R.C.A.F. duties:—

- (1) Seaplane flying training for personnel of the R.C.A.F., and Civil Government Air Services (*ab initio*).
- (2) Winter training—Officers and airmen.
- (3) Combined operations and training with Naval and Military Forces.
- (4) Training of Commercial Pilots.

During 1929 *ab initio* seaplane training was carried out, at which 41 officers and 10 N.C.O.'s attended, all of whom qualified as seaplane pilots.

R.C.A.F. Station, Camp Borden

The Air Station at Camp Borden carries out training of personnel for all the branches of the Air Service. During the fiscal year 1929-30 training was carried out as follows:—

(a) Refresher flying courses were given to two Permanent Officers and one N.C.O. Pilot and twenty-six Non-Permanent Officers.

(b) Training for Provisional Pilot Officers.—Forty-two Provisional Pilot Officers underwent their first term *ab initio* flying training, thirty-four of whom passed their examinations at the completion of the term.

Twenty-eight Provisional Pilot Officers attended for the second term of *ab initio* flying training, twenty-five of them successfully completing their second term.

Ten third term Provisional Pilot Officers attended, all of whom successfully passed their examinations upon the completion of the course and qualified as pilots. Four of the successful candidates were given further flying instruction and granted Non-Permanent Commissions in the R.C.A.F. It is expected that one more of this term will be given a commission in the near future.

(c) Three Commercial Pilots received flying training and they all passed their tests.

(d) An N.C.O. Pilots' Course was given, ten airmen attending, nine of whom qualified as N.C.O. Pilots (*ab initio*).

(e) A Parachute Course was given, at which seventeen officers and airmen attended. All qualified.

(f) A Flying Instructors' Course was given, at which twenty-two officers attended. These officers were classified, or, in the case of former instructors, reclassified, at the completion of the course.

(g) A Technical Training Course for boys was carried out, and forty boys attended, thirty-eight of whom qualified.

(h) Twenty-five Flying Club Instructors received a Flying Instructors' Course, fourteen of whom qualified.

R.C.A.F. Training—Generally

R.C.A.F. training may be divided into two categories: training for officers and for airmen.

The training for officers and airmen at Vancouver and Camp Borden during the year has been most successful, both as regards service personnel and those attached to other Government Air Services.

R.C.A.F. officers have been attached for courses of instruction at the Royal Military College, Kingston, and elsewhere throughout the country.

Officers of the Royal Canadian Air Force attached for training with the Royal Air Force in England:—

	Officers Attending
(a) Royal Air Force Staff College, Andover.....	2
(b) Flying Instructors' Course—Central Flying School, Wittering.....	2
(c) Navigation at Royal Air Force School of Air Pilotage.....	2
(d) Army Co-operation, at Old Sarum, Salisbury.....	1
(e) Armament Course, Eastchurch.....	1
(f) Aeronautical Engineering, Imperial College of Science.....	1
(g) War Staff Course—Royal Naval Staff College, Greenwich.....	1

Provisional Pilot Officers' Training

The idea underlying the present scheme of the R.C.A.F. Provisional Pilot Officers' training is to obtain, with the minimum of expense, a class of young officer having, in addition to his knowledge of flying, a thorough all-round education, with special qualifications on the technical side. With this in view, arrangements have been made with the Canadian universities to accept for Air Force training a number of students in their first year from the Applied Science and Engineering Faculties, and train them at Camp Borden during the summer vacations each year of their university course. A satisfactory response has been made, and numbers greatly in excess of the vacancies apply each year. A number of Gentlemen Cadets from the Royal Military College are accepted each year in the same way. The scheme of training is shown in a pamphlet issued on the subject, which can be obtained by application to the Secretary, Department of National Defence, Ottawa.

*Training for Airmen**Technical Training of Boys and Airmen at Camp Borden*

This scheme of training was approved on November 5, 1925, and was inaugurated on July 4, 1927. During the fiscal year 1929-30, forty boys from all parts of Canada reported at R.C.A.F. Station, Camp Borden, for two months' training. In order to make available a supply of well-trained air mechanics for civil aviation it is intended to increase the numbers attending this course. A pamphlet containing information regarding the plan of training for airmen is available and can be obtained on application to the Secretary, Department of National Defence, Ottawa.

Combined Operations with the Naval and Military Forces

Six operations were carried out in conjunction with the military forces, consisting of reconnaissance flights, transportation, and tactical exercises, with a total of 173 hours' flying time. One operation of five hours' duration was carried out for transportation of naval officers.

SUMMARY OF FLYING, 1929-30

	Hours	Minutes
Aerial Photography for Geographical Section General Staff.....	192	20
R.C.A.F. Transportation.....	519	55
Service and instructional flying.....	9,629	50
Miscellaneous.....	194	45
Totals.....	10,536	50

REPORT OF THE ADJUTANT-GENERAL

(1) Organization

(A) PERMANENT ACTIVE MILITIA

The vote for the fiscal year 1929-30 remained the same as for the previous year, and allowed only slight changes in establishments.

Recruiting

On 1st April, 1929, the strength in warrant officers, non-commissioned officers and men was 2,852.

During the year there were 840 enlistments and 583 discharges.

On 31st March, 1930, the strength in warrant officers, non-commissioned officers and men was 3,109.

Establishment and Strength

The following table shows the Peace Establishment, Limited Establishment, and actual strength of units of the Permanent Active Militia, on March 31, 1930:—

PERMANENT ACTIVE MILITIA

Unit	Peace Establishment			Limited Establishment					
	O.	O.R.	Total	Staff Vote	P. F. Vote		Other Votes		Total All Votes
				O.	O.	O.R.	O.	O.R.	All Ranks
Staff and General List.....	20		20	17	3				20
R.C.D.....	24	415	439	2	15	210	2		229
L.S.H. (R.C.).....	24	415	439	3	15	162	1		181
R.C.A.....	64	1,040	1,104	5	51	608	4	37	705
R.C.E.....	51	357	408	3	32	203	5	22	265
R.C.S.....	46	396	442		18	80	21	184	303
R.C.R.....	34	749	783	6	28	337	5	2	378
P.P.C.L.I.....	34	739	773	6	25	191	6	1	229
R.22e R.....	34	739	773	2	15	139	2		158
R.C.A.S.C.....	33	412	445	1	27	241		1	270
R.C.A.M.C.....	38	108	146	1	30	89	5	10	135
R.C.O.C.....	39	688	727	1	36	415	3	2	457
R.C.A.V.C.....	12	38	50		6	11			17
R.C.A.P.C.....	25	100	125	1	19	66		2	88
C.M.S.C.....	9	202	211		8	163	2	11	184
C.S.A.S.....	6	5	11		5	2			7
Permanent Cadet Staff.....	6		6				6		6
Total.....	499	6,403	6,902	48	333	2,917	62	272	3,632

Unit	Actual Strength					
	Staff Vote	P.F. Vote		Other Votes		Total All Votes
	O.	O.	O.R.	O.	O.R.	All Ranks
Staff and General List.....	17	3				20
R.C.D.....	2	13	211	2		228
L.S.H. (R.C.).....	3	11	161	1		176
R.C.A.....	5	50	591	4	34	684
R.C.E.....	3	31	196	5	20	255
R.C.S.....		17	80	10	146	253
R.C.R.....	6	24	336	6	1	373
P.P.C.L.I.....	6	17	191	6	2	222
R.22e R.....	2	14	139	2		157
R.C.A.S.C.....	1	26	238		1	266
R.C.A.M.C.....	1	28	88	5	10	132
R.C.O.C.....	1	33	411	3	2	450
R.C.A.V.C.....		5	11			16
R.C.A.P.C.....	1	18	63		2	84
C.M.S.C.....		8	162	2	11	183
C.S.A.S.....		5	2			7
Permanent Cadet Staff.....				4		4
Total.....	48	303	2,880	50	229	3,510

Organization

"A" and "B" Batteries, Royal Canadian Horse Artillery, and the 3rd Medium Battery, Royal Canadian Artillery, have been placed on establishments for mechanized batteries, under which horse drawn vehicles are re-placed by tractor drawn vehicles.

Alliance

His Majesty the King has authorized the alliance of The Royal Canadian Army Veterinary Corps to the Royal Army Veterinary Corps of the British Army.

(B) NON-PERMANENT ACTIVE MILITIA

Organization

The following changes in organization have been authorized:—

Cavalry—

The Queen's Own Canadian Hussars has been included with units in the Corps of Hussars.

Artillery—

The 62nd Field Battery (How.), Canadian Artillery, has been authorized to organize at Duncan, B.C.

Signals—

Signal Battalions, Canadian Corps of Signals, have been re-organized into 11 Divisional Signals, each consisting of a Headquarters and three companies.

Organization of the 8th Divisional Signals in Military District No. 2 and the 11th Divisional Signals in Military District No. 11, is restricted to one company.

Canadian Officers' Training Corps—

The University of Western Ontario Contingent has been increased by one company of four platoons.

Queen's University Contingent has been decreased by one platoon.

The University of New Brunswick Contingent has been increased from one company (four platoons), to a Battalion Headquarters and two companies (three platoons each).

British Columbia University Contingent has two companies of two platoons each, in place of two companies of four platoons.

Universite de Montreal Contingent has been increased by a Battalion Headquarters and one company of four platoons.

La Salle Contingent at Quebec, P.Q., has been disbanded.

Infantry—

The 1st British Columbia Regiment (Duke of Connaught's Own) has been converted into a Rifle Regiment.

The 3rd (Reserve) Battalion (195th Bn., C.E.F.), has been authorized as an additional unit of The Regina Rifle Regiment.

The 4th (Reserve) Battalion (138th Bn., C.E.F.), has been authorized as an additional unit of The Edmonton Fusiliers.

1st Bn., Les Franc-Tireurs du Saguenay, is now attached to the 13th Infantry Brigade instead of to the 15th Infantry Brigade.

The 1st Bn., The St. John Fusiliers has been attached to the 16th Infantry Brigade.

The infantry units in Military District No. 3 have been rebrigaded as under:—

7th Inf. Bde.	8th Inf. Bde.	9th Inf. Bde.
1st Bn. The Princess of Wales' Own Regt.	1st Bn. The Lanark and Renfrew Scottish Regt.	1st Bn. The Hastings and Prince Edward Regt.
1st Bn. The Argyll Light Infantry.	1st Bn. The Grenville Regt. (Lisgar Rifles).	1st Bn. The Northumberland Regt.
1st Bn. The Victoria and Haliburton Regt.	1st Bn. The Stormont, Dundas and Glengarry Highlanders.	1st Bn. The Durham Regiment.
1st Bn. The Peterborough Rangers	1st Bn. The Ottawa Highlanders.	1st Bn. The Frontenac Regiment.
1st Bn. The Brockville Rifles (attached).	1st Bn. Le Regiment de Hull (attached).	

Unbrigaded

1st Battn. The Governor General's Foot Guards.

Medical—

The Canadian Army Medical Corps has been reorganized as set forth in General Order 132 of 1929.

The detail of Cavalry Field Ambulances and Field Ambulances remains the same, except that No. 33 Field Ambulance at Edmonton, Alta., has been authorized to organize.

Chief changes made are—

- General Hospitals have been reconstituted as "Reserve" units.
- Reserve Casualty Clearing Stations have been reconstituted as active units.
- All officers of the C.A.M.C. other than those serving with reserve units are carried on General List, C.A.M.C.

C.A.M.C. officers posted to reserve units and as Medical Officers of reserve units of other arms of the service, are carried on a reserve General List, C.A.M.C.

Peace Establishments

Revised Peace Establishments have been authorized as referred to hereunder:—

Artillery—

A Field Brigade, Canadian Artillery (Mechanized), and a Medium Battery, Canadian Artillery (Mechanized), as published in the Appendix to General Order 42 of 1930.

Signals—

A Divisional Signals, Canadian Corps of Signals, as published in General Order 83 of 1929.

Medical—

Canadian Army Medical Corps as published in the Appendix to General Order 133 of 1929.

Nomenclature

The following units have been redesignated as stated:—

<i>Old Title</i>	<i>New Title</i>
3rd (New Brunswick) Medium Brigade, Canadian Artillery.	3rd (New Brunswick) Medium Brigade, Canadian Artillery (The Loyal Company of Artillery).
The Royal Highlanders of Canada.	The Black Watch (Royal Highlanders) of Canada.
1st British Columbia Regiment (Duke of Connaught's Own).	The British Columbia Regiment (Duke of Connaught's Own Rifles).

Localization

The localization of certain units has been changed with due regard to local conditions and population.

Battle Honours

His Majesty the King has approved the award of battle honours as under:—
The North West Campaign, 1885—

The Governor General's Body Guard.. ..	"North West Canada, 1885."
The Governor General's Foot Guards.. ..	"North West Canada, 1885."
The Queen's Own Rifles of Canada.. ..	"North West Canada, 1885."
The Halifax Rifles.. .. .	"North West Canada, 1885."
Les Voltigeurs de Quebec.. .. .	"North West Canada, 1885."
The Royal Grenadiers.. .. .	{ "Batoche."
	{ "North West Canada, 1885."
The Canadian Fusiliers.. .. .	"North West Canada, 1885."
The York Rangers.. .. .	"North West Canada, 1885."
The Simcoe Foresters.. .. .	"North West Canada, 1885."
The Durham Regiment.. .. .	"North West Canada, 1885."
Les Carabiniers Mont-Royal.. .. .	"North West Canada, 1885."
The Princess Louise Fusiliers.. .. .	"North West Canada, 1885."
	{ "Fish Creek."
The Winnipeg Rifles.. .. .	{ "Batoche."
	{ "North West Canada, 1885."

The above award of battle honours supersedes the award of battle honours in respect of the North West Campaign, 1885, published in General Orders (11) dated June 1, 1888; 2 of 1912 and 69 of 1919.

The Great War—

The award of Great War Battle Honours for regiments and corps of the Permanent and Non-Permanent Active Militia of Canada, and units of the Canadian Expeditionary Force, as shown in lists, numbers 1 and 2, published as appendices to General Orders 110 and 123 respectively of 1929.

Further lists of awards when approved by His Majesty will be published in due course.

Alliances

During the past year His Majesty the King has granted authority for several units to be allied as follows:—

<i>Canadian Regiment</i>	<i>Regiment with which allied, British</i>
The Governor General's Body Guard.	The Queen's Bays (2nd Dragoon Guards).
1st Hussars.	11th Hussars (Prince Albert's Own).
The Saskatchewan Mounted Rifles.	9th Queen's Royal Lancers.
The Governor General's Foot Guards.	Coldstream Guards.
The Victoria Rifles of Canada.	The King's Royal Rifle Corps.
The Elgin Regiment.	The Northumberland Fusiliers.
The Perth Regiment.	The Cameronians (Scottish Rifles).
The Peel and Dufferin Regiment.	The Lancashire Fusiliers.
The York Regiment.	The East Yorkshire Regiment.
The Annapolis Regiment.	The Prince of Wales's Volunteers (South Lancashire).
The Manitoba Rangers.	The Sherwood Foresters (Nottinghamshire and Derbyshire Regiment).
The Vancouver Regiment.	The Buffs (East Kent Regiment).
Canadian Army Veterinary Corps.	Royal Army Veterinary Corps.
	<i>Australian</i>
The Royal Montreal Regiment.	The 14th Battalion.
	<i>New Zealand</i>
The Royal Montreal Regiment.	The Waikato Regiment.

Perpetuations

The perpetuation of the undermentioned units of the Canadian Expeditionary Force has been authorized as follows:—

<i>Unit of Canadian Expeditionary Force</i>	<i>Unit of Canadian Militia by which perpetuated</i>
1st Canadian Mounted Rifles Battalion.	1st Regiment, The Manitoba Mounted Rifles, and 1st Regiment, The Saskatchewan Mounted Rifles.
12th Battalion.	1st Battalion, The Royal Rifles of Canada.
171st Battalion.	2nd (Reserve) Battalion, The Royal Rifles of Canada.
209th Battalion.	1st Regiment, 14th Canadian Light Horse.
216th Battalion.	3rd (Reserve) Regiment, The Mississauga Horse.

Discipline

The discipline of the Permanent and Non-Permanent Active Militia during the past year has been satisfactory. The number of convictions by District Court Martial for the year was 47.

Regimental Facings

The Peel and Dufferin Regiment has been authorized to adopt white as the colour of its regimental facings.

(2) Personal Services

The various establishments authorized for the officer personnel of units of the Active Militia have been generally well maintained, and the endeavours of Commanding Officers to obtain young gentlemen of high educational standard to accept appointments to commissions in the Non-Permanent Active Militia, and the keen interest manifest throughout have been productive of excellent results.

The introduction of regulations making the rank of 2nd Lieutenant the junior commissioned rank for officers of combatant arms of the service, which was brought into effect during the year under review, is considered an improve-

ment, and increased efficiency may now be expected in the case of young officers, who will, in the initiatory stage of their military career, receive a longer period of military training, and become better qualified to fit themselves for promotion. Commanding Officers generally were eager for this change in the regulations, as it will afford them the opportunity of judging whether new officers are likely to become capable and worthy of advancement, prior to establishing their seniority in the higher rank of Lieutenant.

Changes in commands of Brigades, Regiments, Battalions, and units generally, of which there have been 67 during the year, have been regularly administered as they became due. In a few cases where recommended, and where it was considered to be in the best interests of the service, limited extensions were granted.

District Officers Commanding have rendered the regulation returns respecting officers who are carried on the Reserve of Officers list, and the general list of all such officers which is maintained at Defence Headquarters has therefore been kept under proper revision.

The number of new appointments to commissions in the Non-Permanent Active Militia during the twelve months ended March 31, 1930, is 911.

The total number of document commissions prepared and issued during the same period is 1,436.

Fifty-four document warrants were also prepared and distributed.

Appointments and Retirements, Permanent Active Militia

The number of resignations and retirements in the Permanent Active Militia, which were authorized during the year, amounted to 19, while 12 new appointments were authorized.

List of Officers, Canadian Defence Forces

A revised list of officers of the Canadian Defence Forces (Part I) has been completed, and this new edition, which includes references respecting officers of the three arms (Naval, Military and Air Service) should be available from the printers for distribution very shortly.

The current issue of Part II, which contains the war service of officers, list of officers carried on the Reserve of Officers, as well as other special reference information, was produced in December, 1927. Work in connection with having this volume revised is now in progress, with a view to having a new edition made available during the present year.

(3) Medical

During the year 23 Medical Units trained at Camps of Instruction, and 10 at local Headquarters; 11 Provisional Schools were held, and 3 Correspondence Schools. In addition to these 5 District Camp Schools were held. From these Schools, the total number of Officers and Nursing Sisters qualifying for promotion, is 80. The number of Other Ranks qualifying for promotion is 36.

The R.C.A.M.C. has also provided medical attendance to the Royal Canadian Air Force; 2 Officers and 7 Other Ranks being detailed especially for that work. Two R.C.A.M.C. Officers are also detailed to work with the Naval Services.

The health of the Permanent Force Troops has been good throughout the year; the total number of patients treated in hospital, or quarters, being 3,185. This was made up as follows:—

Royal Military College.....	225
Permanent Force.....	1,766
Non-Permanent Active Militia.....	394
Royal Canadian Air Force.....	393
Royal Air Force.....	1
Royal Canadian Navy.....	381
Royal Navy.....	15
Canadian Officers' Training Corps.....	8
Civilians.....	2
	<hr/>
	3,185

These figures show a decrease of 131 in the number of patients treated, as compared to the previous year.

There were 20 deaths during the year, caused as follows:—

Pneumonia.....	(P.F.)	2
Nephritis.....	"	1
Aneurism of aorta.....	"	1
Angina pectoris.....	"	1
D.A.H. (heart).....	"	1
Cerebro spinal syphilis.....	"	1
Acute hepatitis.....	"	1
Rheumatic fever.....	"	1
Paraphlegia.....	"	1
Carcinoma (stomach).....	"	1
Pneumonia.....	(R.C.A.F.)	2
General injuries (aeroplane crashes).....	"	3
Suicide.....	"	1
Pneumonia.....	(Cadet R.M.C.)	1
Intestinal obstruction.....	(N.P.A.M.)	1
General injuries (aeroplane crash) (Civilian).....		1
		<hr/>
		20

Medical Boards and Medical Examinations during the year amounted to 8,015.

In addition to the ordinary Military Medical Training, the Medical Department conducts a Centre of Training for the St. John Ambulance Association, giving special attention to First Aid Training for the Cadet Services, the Regimental Medical Services and the Field Medical Units. During the year the awards made to the Military Services, of St. John Ambulance Certificates, totalled 346. In the various Districts 18 Teams entered for competition for the District Shields. Eight of these District Shields were awarded, and a competition was held among these 8 Teams for the Mary Otter Dominion Trophy, for St. John Ambulance work. The Trophy was won by a Team from No. 3 Detachment R.C.A.M.C., at Kingston.

Pay Services

The functions of this directorate during the fiscal year were much the same as during the previous one. The issue of pay and allowances to the Permanent and Non-Permanent Active Militia and the Royal Canadian Air Force, (including the payment of troops and local accounts for supplies, maintenance, repairs, etc., and accounting in the various Military Districts), is carried out by detachments of the Royal Canadian Army Pay Corps at National Defence Headquarters and at the headquarters of each Military District. The expansion of Air Services has been responsible to some extent for an increase of work in the Pay Services.

The strength of the Royal Canadian Army Pay Corps as at March 31, 1930, consisted of 19 officers and 65 other ranks, two of the latter being detached for duty at the Royal Military College.

All detachments of the R.C.A.P.C. and District Pay Offices were inspected by the District Officers Commanding during the year. The Director of Pay Services also inspected these offices, with the exception of four which he had inspected during the previous year. Reports received in this connection were all favourable.

The undermentioned financial statements, comprising Appendix "B," cover the fiscal year ending March 31, 1930, and show the expenditure on account of Pay and Allowances for the Permanent Active Militia and the Royal Canadian Air Force:—

No. 1.—Statement of expenditure by Stations on account of pay and allowances of the Permanent Active Militia for the fiscal year 1929-30.

No. 2.—Statement of expenditure by Districts on account of pay and allowances of the Royal Canadian Air Force for the fiscal year 1929-30.

The Pay Services is also responsible for the disbursements on claims received from ex-members of the Canadian Expeditionary Force, or their dependents, in regard to adjustments of Pay, Separation Allowance and War Service Gratuity. During the year under review, the following amounts payable out of Adjustment of War Claims Vote, in respect of claims coming under the headings mentioned, have been authorized for payment:—

Pay and allowances.....	\$ 3,254 63
Separation allowance.....	17,109 00
War service gratuity.....	17,346 21
Total.....	\$37,709 84

5. Records

During the year ending March 31, 1930, the military staff of the Record Office was reduced by three, and the civil staff by one. The Director of Records was transferred to Military District No. 10, and the appointment of Director of Records abolished. The volume of work accomplished by the office shows no decrease as compared with the previous fiscal year.

Documents Section

Requests received from the Department of National Defence, other Government departments, the British Empire Service League and the general public necessitated the withdrawal and research of 200,657 sets of documents.

The machine work in connection with the compilation of C.E.F. statistics has been completed, and the task of compiling these figures into permanent ledger form is being proceeded with. A return showing casualties, for each and every day of the war, for each and every unit of the C.E.F. is being compiled for the department's official history and it is expected that this work will be completed during the fiscal year 1930-31. Satisfactory progress has been made on the work in connection with the Book of Remembrance.

In addition to the routine work of the C.E.F. Registry, the volume of which indicates no decrease, steps were taken to transfer to the custody of Public Archives three-quarters of a million overseas files.

The task of assembling and rearranging Paylists of C.E.F. units in Canada, and Non-Permanent Active Militia units mobilized for active service, has been completed and a card index compiled. Cancelled pay cheques issued to personnel of the C.E.F. and Non-Permanent Active Militia during the war period have been filed in proper sequence and are readily accessible for reference. The routine work in connection with the verification of pay matters indicates an increase in enquiries.

Graves Registration

Notification of the death in Canada of 2,289 ex-members of the forces has been received and of these 1,129 graves have been, to date, officially recorded in the department. In 364 cases arrangements have been made to mark the graves permanently with the regulation headstone.

The draughting work in connection with the Vimy Memorial has been completed, and all necessary material is now in the hands of the draughtsmen overseas.

The usual identification work in connection with effects recovered with bodies found in battle areas has been carried out and definite identification was made in 32 cases.

Considerable correspondence was received from relatives of deceased soldiers buried overseas requesting advice as to the location of graves and the best method of reaching same.

Honours and Awards

It is of interest to note that the work of granting and replacing war medals has increased over the previous year. This indicates that returned men are still vitally interested in their awards. During the year an effort was made to get in touch with recipients whose medals were not issued, and good results followed.

Many cases have been submitted to the Awards Board from the Permanent and Non-Permanent Active Militia for the award of Long Service Decorations and Medals.

Applications for Memorials granted to the next-of-kin of those who died on service or whose subsequent death has been attributed to service, show no diminution, and the correspondence received by the department indicates the extent to which these Memorials are appreciated.

Veterans of previous campaigns are still interested in their service medals as shown by the fact that during the year 19 Fenian Raid and Northwest Rebellion Medals were granted.

Estates

A further attempt has been made by the Estates Branch during the past year to dispose of estates which have been held in abeyance on account of the fact that the heirs could not be located. Every possible clue was followed up, and the enquiries instituted have, in every instance, brought satisfactory results, thus enabling the Department to close the estates.

Arrangements have also been made whereby the department, with the assistance of the Russian Red Cross Society in Moscow, is able to effect distribution of military estates to beneficiaries residing in Russia, which action it was previously impossible to take, owing to the conditions existing in that country.

Some 85 new ledger sheets were opened, for credits received on account of ex-soldiers who have died while receiving treatment through the Department of Pensions and National Health. All of these funds have been distributed except in certain involved cases where the delay has been unavoidable; or where difficulty has been experienced in locating the heirs.

A total disbursement of \$11,533.24 has been made, covering 133 estates. In addition the sum of \$2,704.96 was paid out of the Trust Account, to 20 minor beneficiaries who have attained the age of fifteen years during the fiscal year which has just terminated.

(6) Extracts From Report of the Commandant Royal Military College of Canada for the Year Ending June 18, 1930

Strength

The College opened on August 28, 1929, with a Cadet strength as follows:—

Recruits joined at beginning of term 1929-30.....	63
First Class returned.....	40
Second Class returned.....	45
Third Class returned.....	43
Fourth Class returned.....	9
Strength at beginning of term.....	200

During the year 1 Cadet has died and 6 have been withdrawn for various reasons.

Distribution of Cadets by Provinces—

The distribution of Gentlemen Cadets by provinces at the beginning of the term 1929-30 was:—

Ontario.....	100
Quebec.....	50
British Columbia.....	16
New Brunswick.....	8
Nova Scotia.....	7
Manitoba.....	4
Saskatchewan.....	5
Alberta.....	7
Abroad.....	3

Educational

(a) *Results.*—Of the 40 Gentlemen Cadets in the First Class, 25 obtained Diplomas (including 5 who graduated with honours), 14 will be required to write supplementary examinations, and one has failed.

In the Second Class 22 Gentlemen Cadets have passed, 19 will be required to write supplementary examinations, and two have failed.

In the Third Class 24 Gentlemen Cadets have passed, 12 will be required to write supplementary examinations, and 5 have failed.

In the Fourth Class 30 Gentlemen Cadets have passed, 23 will be required to write supplementary examinations, 15 have failed, and one Gentleman Cadet is still to take his examinations, having been unable to take them at the usual time owing to illness.

(b) *General.*—The general working of the teaching organization has been excellent once more, and the standards aimed at for the year have been reached. All classes have worked well.

Commissions

The following commissions have been applied for by gentlemen cadets:—

Regular Army.....	1
Royal Air Force.....	1
Canadian Permanent Forces—	
Lord Strathcona's Horse (R.C.).....	1
Royal Canadian Engineers.....	3
Royal Canadian Corps of Signals.....	2
Royal Canadian Air Force.....	3

Discipline

Discipline throughout the year has been satisfactory.

Medical

The general health of the gentlemen cadets during the period covered by this report has been excellent.

Accommodation

The preliminary plans for the new Mess and Recreation Block have been drawn up and, if funds permit, it is hoped that it will be possible to commence work on the building during the summer. The necessity of this building becomes more apparent every day and its completion will place the College in a very much better position from the point of view of messing accommodation and library and class-room accommodation.

Riding Establishment

The standard obtained in equitation in the various classes has been up to the average.

Administration

(a) *Messing*.—The standard of messing for gentlemen cadets has been considerably improved during the past year without any increase in cost.

(b) *Kitchen Equipment*.—A few minor additions have been made to the kitchen equipment.

(c) *Clothing*.—One thousand one hundred and five articles of clothing were turned out from the Tailor's Shop during the year.

Grounds and Buildings

(a) *General Repairs to Buildings*.—The buildings have all been kept in a good state of repair. Periodical repairs and painting have been carried out.

(b) *Water Supply*.—The quality of the water after treatment and purification has been very good. The weekly tests made by the Public Health Department have shown the water to be pure and fit for consumption at all times.

(c) *Roads*.—Provision is being made for all roads to be kept in good condition.

(d) *Boundary Fences and Walls*.—These have been maintained in a state of good repair.

(e) *Dormitory Buildings*.—The walls of all rooms in Fort Frederick Dormitory were calcimined.

(f) *Heating Systems*.—The Administration building and the Educational building have been connected for heating purposes; as also have the Gymnasium and the Staff Adjutant's Quarters. For the heating of these buildings, automatic coal burners (iron firemen) have been installed, and these have proved both economical and efficient. A considerable saving in fuel has been effected by this new system of heating.

(g) *Grounds*.—The grounds have been well maintained.

General Staff

(a) In addition to instruction given to gentlemen cadets, the General Staff Branch of the Royal Military College has conducted the following courses, as well as being engaged in the preparation of the precis for, and examination of all papers of the Militia Staff Course:—

- i. Staff College Preparatory Course.
- ii. Refresher Course.
- iii. Long Course.

(b) The General Staff has also prepared the examination papers for promotion to the rank of Colonel in the Non-Permanent Active Militia; and has, from time to time, reviewed the subjects set for Subjects (a) and (c) of promotion examinations for the Permanent Force.

(c) *Staff College Preparatory Course*.—This course commenced on 1st October, 1929, and terminated at the conclusion of the examinations on 6th March, 1930.

Six officers of the Permanent Active Militia and one officer of the Royal Army Service Corps attended the course.

(d) *Refresher Course*.—This course ran concurrently with the Staff College Preparatory Course from October 1 to December 21, 1929.

Four officers of the Royal Canadian Air Force attended.

(e) *Long Course*.—The Long Course commenced on February 24 and terminated at the beginning of June, 1930. One officer of the Permanent Active Militia and three officers of the Non-Permanent Active Militia attended the course.

Competitions with Empire Institutions

(a) *R.M.C., Kingston vs. R.M.C., Sandhurst. Rifle and Revolver*.—The annual rifle and revolver match with the Royal Military College, Sandhurst, was fired on June 13, 1929, and resulted in divided honours. R.M.C., Sandhurst, winning the rifle match, and R.M.C., Kingston, winning the revolver match.

The scores were as follows:—

<i>R.M.C., Kingston</i>		<i>R.M.C., Sandhurst</i>	
Rifle.. . . .	1,013	Rifle.. . . .	1,123
Revolver.. . . .	202	Revolver.. . . .	173

(b) *Lafferty Cup*.—The Lafferty Cup was again won by the R.M.C. of Australia. The R.M.C., Sandhurst, were second; the Royal Air Force Cadet College were third; R.M.C., Kingston, fourth, and the Royal Military Academy, Woolwich, fifth.

Sports

The customary program of sports was carried through during the term.

Transport

The transport of the College has been maintained in serviceable condition. One new truck was purchased during the year and has given complete satisfaction.

Montreal Garrison Military Tournament, 1930

A party of 100 gentlemen cadets took part in the Montreal Garrison Military Tournament on May 14-17, 1930.

Presentations

(a) *Cups*.—The Militia Staff Course of 1929 presented a cup, to be awarded yearly to the gentleman cadet obtaining the highest number of points in the following events:—

- Fifty yards swim.
- Smith bugle events.
- Rifle competition.
- Boxing.

Mrs. G. H. Ralston has offered to present a cup for competition at the Annual Obstacle Race.

Other Prizes.—Colonel W. F. Hadley, O.C., Le Regiment de Hull, has offered a silver cigarette case as an annual prize to be awarded to the gentleman cadet of the First Class who wins the most prizes in his graduating year.

The Staff of the R.M.C., Sandhurst, presented a coloured print (Review of Gentlemen Cadets at Remnantz, Great Marlow, circa 1810). R.M.C., Sandhurst, also presented a coloured print of the Royal Military College, Sandhurst, published December 1, 1813.

The Militia Staff Course of 1929 presented a handsome chesterfield to the Senior Staff Mess.

Visitors

The undermentioned visited the College during the past year:—

Vice Admiral Sir Cyril Fuller, North American West Indies Station.

Sir William Clark, British High Commissioner.

Lieut.-Col. L. Rowley Hill, late Military Attache, British Embassy, Tokio.

Major-General Sir C. C. VanStraubenzee, C.B., C.M.G.

The Headmasters of the following English Public Schools: Harrow, Charterhouse, Christ's Hospital, Dauntsey, Haileybury College, Manchester Grammar School, Mill Hill, Whitgift Grammar School, St. Paul's, Marlborough College, Wrekin College, Ampleforth College, George Watson's College, Bedford, Kingswood, Wellington College.

REPORT OF THE QUARTERMASTER GENERAL

The reports of the several Directorates under the Quartermaster General follow, in the following order:—

- (1) Directorate of Engineer Services.
- (2) Directorate of Supplies and Transport.
- (3) Directorate of Equipment and Ordnance Services.

Directorate of Engineer Services*Definition of Duties*

Engineer Services comprise the design, construction and maintenance of fortifications, military buildings and works; also the custody of lands owned or used by the Department of National Defence. It is also the duty of the Royal Canadian Engineers to operate and maintain the defence electric lights (search-lights) and the telephone systems in permanent fortifications.

Staff

Under the Quartermaster-General, the Director of Engineer Services is responsible for the proper carrying out of all Engineer Services, and administers the sum voted by Parliament under the heading, "Engineer Services and Works, Militia Services," all Engineer Services for the Royal Canadian Air Force, and certain services for the Department of Civil Aviation.

The Director of Engineer Services is assisted by a small staff at Headquarters, who are employed on inspection duties, and the preparation and supervision of important constructional projects, as well as on ordinary administrative duties.

A District Engineer Officer is appointed in each Military District. He is responsible to the District Officer Commanding, for the proper execution of Engineer Services within his district. He has a staff of officers and other ranks of the Royal Canadian Engineers to assist him in the performance of his duties of design, supervision and administration; the size of the staff depending on the amount of work in each district.

Notes on Engineer Services Generally

The condition of military works and buildings generally is good. Owing to the age of many of the buildings, an annually increasing expenditure on maintenance becomes necessary, in order that they may be kept in suitable condition for various classes of occupation.

Rifle Ranges

Existing rifle ranges are being maintained according to their requirements. When sites for several ranges were purchased many years ago, sufficient land was not procured to provide the Danger Area now deemed advisable. Where such areas have become populated or are being used by owners for various purposes, it has been necessary to either close or restrict the use of the range until the areas required are leased or purchased or a new site procured.

During the year, the following construction was carried out:—

- Saskatoon, Sask., (completed).
- North Vancouver, B.C., (completed).
- Sarcee Camp, Alta., (completed).
- Valcartier Camp, (in progress).

Accommodation, Permanent Active Militia

The situation regarding barracks for the Permanent Active Militia is fairly satisfactory. At Calgary, only temporary provision is made in the Armoury, and in Toronto, the retention of Stanley Barracks is at the pleasure of the Corporation of the City of Toronto. Stable accommodation for the various mounted units is fair, but as the artillery is being gradually mechanized, the stabling problem is being relieved. At Calgary better accommodation of a fireproof type is required.

Accommodation, Non-Permanent Active Militia

The provision of accommodation for the Non-Permanent Active Militia is being gradually improved as funds permit. This is being carried out, either by alterations or extensions to existing buildings, or by leasing buildings and suitably fitting them up to meet the requirements of the various units to be accommodated therein.

No new armouries have been erected this year.

EXPENDITURES, 1929-30 (MILITIA SERVICE)

ENGINEER EXPENDITURES CLASSIFIED UNDER VOTES

Engineer Services and Works

(A) Rifle Ranges.....	\$ 147,220
(B) Barracks.....	274,412
(C) Ordnance Buildings.....	37,051
(D) Drill Halls and Armouries.....	144,488
(E) Camps and Lands.....	151,955
(F) Fortifications.....	41,506
Total.....	\$ 796,632

The distribution of expenditures on Engineer Service funds was as follows:—

Military District No. 1.....	\$ 37,130
“ “ 2.....	88,506
“ “ 3.....	46,283
“ “ 4.....	46,868
“ “ 5.....	81,277
“ “ 6.....	13,500
“ “ 7.....	10,300
“ “ 10.....	77,880
“ “ 11.....	64,970
“ “ 12.....	22,468
“ “ 13.....	40,845
Halifax Garrison.....	148,094
Petawawa Camp.....	44,904
Connaught Rifle Range.....	53,196
Ottawa Services.....	20,411
	\$ 796,632

Main Engineer Expenditures from Other Appropriations

MANUFACTURING ESTABLISHMENTS

Dominion Arsenals, Lindsay and Quebec.....	\$ 10,497
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NON-PERMANENT ACTIVE MILITIA

Temporary work in connection with camping arrangements, such as water supply, latrines, ablution tables, kitchens, incinerators, preparation of camp sites, etc.....	33,468
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CONSTRUCTION OF MAGAZINES, HALIFAX

Continuation of program of construction of Joint Service Magazines, Halifax.....	93,667
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CITADEL WALLS, QUEBEC

Repairs to Quebec gates and walls.....	50,000
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KINGSTON ORDNANCE DEPOT

Repairs to "A" Block, Ordnance Depot (due to fire damage).....	18,400
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WORK CARRIED OUT, 1929-30

Work Carried Out, 1929-30

The following is a list of the more important services performed:—

<i>Military District No. 1—</i>		
London—		
Wolsley Barracks—Exterior painting "A" Block.....	\$	1,389
Windsor Armoury—Renewal of main roof.....		4,980
<i>Military District No. 2—</i>		
Toronto—		
Long Branch Rifle Range—Construction of roads and paths.....		1,191
Stanley Barracks—Painting (in parts).....		1,360
Dundas Armoury—New roof covering over Main Hall.....		1,174
Niagara Falls Armoury—Internal painting.....		1,295
Toronto Armoury—Paint underside of roof.....		3,100
“ Improvement of Officers' Mess Room, Royal Grenadiers.....		1,085
“ Lay new floor.....		9,500
Niagara Camp—Provide drainage to R.C.D. and R.C.R. lines.....		1,540
Camp Borden—Prepare building No. 90 for accommodation.....		4,000
“ Recondition building No. 83 for telephone exchange, etc.....		1,975
“ Prepare building No. 91 for accommodation for Signals.....		4,517
“ Alterations and additions heating plants.....		4,950
“ Fitting up building No. 88 for Officers' Mess.....		8,500
<i>Military District No. 3—</i>		
Kingston—		
Barracks—New heating boilers, Officers' Mess and Canteen.....		1,500
Ordnance Depot—Install shelving, etc.....		1,109
Kingston Armoury—New covering on flat roof.....		1,750
“ Pointing stone work.....		2,248
<i>Military District No. 4—</i>		
Montreal		
Pointe-aux-Trembles Rifle Range—Install septic tank.....		1,140
Montreal Armoury—Provide four Target Indoor Rifle Range.....		1,510
“ New roof covering, Main Hall, repairs to.....		2,500
“ Repairs to plaster, painting and plumbing.....		1,000
St. Johns, The Barracks—Painting and repairs to Married Quarters and Officers' Mess.....		2,583
<i>Military District No. 5—</i>		
Quebec—		
Detention accommodation—Provide five cells, also heating.....		1,800
Valcartier Camp—Drilling well and purchasing casing.....		1,000
Dominion Arsenal—Rebuild portion of walls.....		4,872
St. Louis Barracks—Renew portion of roof covering.....		1,000
Citadel—Officers' Mess—Construct new kitchen.....		2,000
“ Reappropriation of Armoury building as quarters for 22nd Regiment.....		5,500
“ Construct forage shed.....		1,000
“ vehicle shed.....		2,500
Quebec Drill Hall—Construct new road.....		4,337
Citadel Hill—Lay new road to Guard Room.....		5,100
<i>Military District No. 6—</i>		
Halifax—		
Charlottetown, P.E.I. Armoury—External painting.....	\$	1,180
Aldershot, N.S. Camp—Repairs to grounds.....		1,247
“ Extend training area.....		1,074
Glacier Barracks—Renew pipe line to hydrants.....		2,475
Churchfield Married Quarters—Renew eaves and roof flashings.....		1,700
Old Fuel Yard—Repairs and renovation.....		1,000
Armouries—Renew H.W. boilers.....		1,610
York Redoubt—Renew skidding shed floor.....		1,500
Camperdown Road Telephone Lines—Replace poles, etc.....		1,000
Bedford Rifle Range—Construction of hut for N.S.P.R.A. Half cost.....		2,997
South Barracks—Install central heating, West Block.....		2,100
Bellevue Annex—Convert into married quarters.....		17,200
Wellington Barracks—Construct boiler room.....		2,156
“ Install h.w. system north end.....		13,450
<i>Military District No. 10—</i>		
Winnipeg—		
Fort Osborne Barracks—Provision of sewer.....		1,029
“ Construction of vehicle shed.....		11,450
“ Construction of forage barn.....		7,500
“ Redecorating quarters, schools and offices.....		2,995
“ Paint barracks in part.....		1,987
“ Reroofing Officers' Mess.....		1,045
“ Construction of Dugout and gas chamber.....		1,725
“ Alterations to Married Quarters, other ranks.....		2,345
“ Extension of 12" main.....		2,395

The following more important services were performed:—

Ottawa—Rockcliffe Aerodrome—	
Preparation of flying field, including clearing, draining, grading and surfacing.....	52,250 00
Addition to garage.....	1,275 00
Open up borrow pit.....	2,750 00
Erect pump house.....	2,110 00
Fire protection, equipment.....	1,055 00
Water supply.....	4,365 00
Install fuel oil supply.....	1,275 00
Additional heating.....	1,958 00
Alterations to kitchen.....	2,000 00
Purchase tractor caterpillar.....	3,800 00
New airmen's quarters, painting, etc.....	4,270 00
Construct guard house.....	4,250 00
New hangar, stucco on walls.....	1,475 00
Install lubricating oil system.....	1,284 00
Install Aqua Gas Fueling system.....	3,585 00
Install boundary lighting system.....	3,654 00
Install intercommunicating telephone and fire alarm.....	3,424 00
Laying tarmac apron and approaches to hangar.....	4,850 00
New airmen's quarters, excavation, concrete and framework.....	4,500 00
Moving musketry buildings.....	10,650 00
Camp Borden—	
Convert building 10M into married quarters.....	4,726 00
Altering building No. 58 and construct new building for sergeants' mess..	9,843 00
Provide Aqua gas filling system with 2 tanks.....	5,307 00
Purchase La France fire engine.....	7,300 00
Install lights, end of hangars and wireless towers.....	1,045 00
Conversion of Buildings 34M, 35M, 36M, to provide married officers' quarters.....	9,450 00
Construct building to provide recreation room.....	6,993 00
Cover married quarters with roofing paper.....	2,684 00
Provide accommodation in Building 67 for Airmen's Mess.....	2,756 00
Provide accommodation in Building 57 for Officers' Mess.....	6,728 00
Provision of electric refrigerators, messes and depot.....	5,701 00
Lac du Bonnet—	
Flooring Bessonneau Hangar.....	1,860 00
Covering exterior hangar.....	1,208 00
Gasoline storage installation.....	1,740 00
Cormorant Lake—	
Flooring Bessonneau Hangar.....	2,500 00
Cover hangar with surfaced roofing.....	1,396 00
Gasoline storage installation.....	1,975 00
Ladder Lake—Gasoline storage installation.....	1,950 00
Berens River—Construct radio station.....	2,774 00
Lac la Ronge—Petrol storage system.....	2,518 00
High River—	
New floor in one hangar.....	1,201 00
Water services.....	3,268 00
Trenton Air Station—	
Diversion of The Creek Crossing, Township road.....	10,959 50
Grubbing and removing standing trees over area.....	9,656 00
Trenching for and laying field tile for underdraining.....	1,974 62
Purchase of field tile.....	8,500 00
Grading aerodrome.....	3,894 00
Township road diversion.....	8,370 00
Surveying, etc.....	3,948 00
Preparation of seaplane station.....	30,864 00
Ditching and excavating to provide access to area north of the C.N.R. and south of the C.P.R.....	4,500 00
Clear land between C.P.R. and C.N.R.....	8,330 00
Clean up and burn brush and slash.....	3,262 50
Purchase of materials.....	62,704 00

Lands

The following is a list of military properties disposed of during the fiscal year 1929-30:—

Rodd Hill, Esquimalt, B.C.—An area of 0.04 acres, with right-of-way for a pipe line sold to Laura Miller Dunsmuir for \$5,000 and cost of connecting the Rodd Hill Water Supply with the city of Victoria water works, by Grant dated September 30, 1929.

Calgary, Alberta, Cemetery Lots.—Blocks 14, 15 and 16, Union Cemetery, conveyed to the city of Calgary, by grant dated November 2, 1929, in exchange for 233 grave spaces to be provided as required in Burnsland Cemetery.

Three Rivers, P.Q., Rifle Range.—Roadway 20 feet wide, 1,100 feet long, conveyed to Communauté des Religieuses Ursulines, by grant dated January 29, 1930, in exchange for an equal area.

Cemetery Plots.—The following cemetery plots were transferred to the Department of Pensions and National Health by Order in Council P.C. 685 dated March 29, 1930: London, Ont., Mount Pleasant Cemetery, 15 lots section X, and St. Peters Cemetery, 4 lots section C.; Guelph, Ont., Guelph Cemetery, plot in block K. and Catholic Cemetery, part lot 8; Ottawa, Ont., Beechwood Cemetery, parts lots 13-15 section 29, and Notre Dame Cemetery, lot 2 in Special block; Montreal, P.Q., Mount Royal Cemetery, 10 plots section G., and Notre Dame de Neiges Cemetery, 2 lots section M.

Montreal South.—About 15.1 acres transferred to the control of the Department of Marine and Fisheries for the use of the Harbour Commissioners of Montreal, by Order in Council P.C. 568 dated March 14, 1930.

The following is a list of Military properties acquired during the fiscal year 1929-30:—

Grand Prairie, Alta.—The SE. $\frac{1}{4}$ section 29, Tp. 71. R. 6, W. 5th M., transferred to the Department of National Defence by the Department of the Interior, by Order in Council P.C. 978 dated June 11, 1929, for an aeroplane landing field.

Rodd Hill, Esquimalt, B.C.—An area of 0.04 acres, with right-of-way for a pipe line transferred to Canada by the War Department, by Indenture dated May 8, 1929.

Three Rivers, P.Q., Rifle Range.—Roadway 20 feet wide by 1,100 feet long conveyed to the Crown by Communauté des Religieuses Ursulines by deed dated January 17, 1930, in exchange for an equal area.

Trenton, Ont., Airport.—Eight hundred and eighty-six acres expropriated October 22, 1929. Of this area 191.38 acres were purchased up to March 31, 1930.

Vancouver, B.C., Rifle Range Site.—Lots purchased from various individuals at a cost of \$1,206.50.

Alderson, Alta.—NW. $\frac{1}{4}$ Sec. 19, Tp. 15, R. 10, W. 4th M. (160 acres) purchased for an amount of \$200.28, December, 1929, for an emergency landing field.

ROYAL CANADIAN ENGINEERS

Duties

The Director of Engineer Services is also the Officer Administering the Corps of Royal Canadian Engineers. The duties of the Royal Canadian Engineers are:—

- (a) To operate the defence electric lights, telephones and machinery of the fortresses of Canada.
- (b) To instruct the Non-Permanent Active Militia and Gentlemen Cadets of the Royal Military College in military engineering.
- (c) To execute and supervise Engineer Services throughout Canada.
- (d) Any other military duties which they may be called upon to perform.

The Officer Administering, Royal Canadian Engineers and District Engineer Officers, in their respective spheres, give advice on technical matters connected with the organization and training of the Engineers of the Active Militia. District Engineer Officers in most cases act as instructors in military engineering at the various Provisional and Camp Schools held for the training and qualification of the personnel of the Active Militia Engineer units.

Officers.

The present Officer strength of the Corps is 31. Of this number, five are "On Command"—one as Assistant Director of Military Intelligence, one at the School of Military Engineering, Chatham, Eng., and three at McGill University.

Other Ranks.

The present strength of Warrant Officers, N.C.O.s. and Sappers is 196, or seven under the authorized limited establishment. This is due to the high qualifications as tradesmen that are now required, and also to there being a great demand for labour in the building and construction trades in civil life.

It is becoming increasingly difficult to find suitable men for training as draughtsmen or military foremen of works. Men of the proper type are not anxious to enlist, since they can earn higher wages in civil employ.

Training

The functions of the Royal Canadian School of Military Engineering are:—

- (a) To provide instruction for officers and other ranks of the Royal Canadian Engineers in their duties, and by examinations, to determine whether they possess the requisite technical qualifications for promotion, or for certain special appointments.
- (b) To qualify W.Os. and N.C.Os. of the Royal Canadian Engineers as Instructors in Military Engineering, for duty with the Instructional Cadre or with the Corps.
- (c) To hold courses for the qualification of officers and N.C.Os., of the Canadian Engineers (N.P.A.M.) and to set and correct examinations for Provisional or Camp Schools of Engineering held in other parts of Canada.

The courses given to R.C.E. personnel at the School are:—

Foreman of Works.

Works Sergeant.

Mechanist Electrician.

Mechanist Machinist.

Mechanist Instrument Repairer.

Engineer Clerks.

Engineer Draughtsman.

Instructor in Military Engineering, Class I and Class II.

Defence Electric Lighting; Engine Drivers, Gas and Oil; Searchlight Operators.

In addition, qualifying courses were held during the year at the School for Officers and N.C.Os. of the Non-Permanent Active Militia (Engineers).

The location of the Royal Canadian School of Military Engineering at Halifax is not satisfactory. The transportation of personnel to the School from other parts of Canada is very costly, and as a consequence the numbers that can attend courses there are limited. It is hoped that funds and accommodation will soon permit of the moving of the School to some central point in Ontario.

No. 6 Detachment at Halifax is the training detachment of the R.C.E. The strength of the R.C.E. at Halifax on March 31, 1930, was 7 officers and 82 other ranks, including the Royal Canadian School of Military Engineering staff and the staff of the District Engineer Officer. In consequence of these small numbers, it is very difficult to carry out training. However, the detachment trained at McNabs Island in field works, bridging, demolitions, camouflage, road building and camping arrangements, as well as drill and small arms training.

Directorate of Supplies and Transport

Under the Quartermaster-General, the Director of Supplies and Transport is charged with the provision, administration and distribution of all food, forage, fuel, light and disinfectants; transport by rail, water and road—horsed and mechanical; remounts and veterinary services; rental of buildings (in conjunction with the Department of Public Works); telephone services; the allotment and appropriation of barracks and barrack services.

Strict economy in all services has been observed, consistent with efficiency and all services are operating at a minimum strength.

The following is a brief outline of the services rendered:—

Supplies for Troops and Horses

(Permanent and Non-Permanent Active Militia)

One thousand nine hundred and twenty-nine contracts for various supplies and services have been made during the past year by the Contracts Branch at the request of this directorate. The following supplies were issued:—

Food rations.....	743,685
Forage rations.....	236,302
Hospital diets.....	23,787

Few complaints were received as to the quality of the food and forage provided by the contractors, and the prices were considered fair and reasonable. Food rations advanced in price 1.4571 cents and forage rations 1.3495 cents as a result of a natural fluctuation in prices.

The following is a comparison of the cost per ration during the last five years:—

<i>Food</i>		<i>Forage</i>	
	¢.		¢.
March 1926.....	33·1045	March 1926.....	36·4509
March 1927.....	33·9849	March 1927.....	36·9480
March 1928.....	34·99565	March 1928.....	40·6513
March 1929.....	38·1799	March 1929.....	40·3220
March 1930.....	39·6370	March 1930.....	41·6715

Lighting and Heating of Buildings

Supplies of fuel and the kinds and quality of coal delivered by the contractors were in accordance with the Department's specifications. Canadian coal is used wherever practicable. Anthracite is used only where municipal regulations or the type of equipment, chimneys, etc., prevent use of bituminous coal. Coke was used where the type of heating apparatus was suitable for its use and compared very favourably with anthracite coal, being very efficient and economical. The supply of light to all buildings has been satisfactory and economical.

Transport by Ocean and Rail

The provision of ocean transport is confined to personnel proceeding to and returning from England, in connection with courses of instruction. All accounts for such ocean transport together with miscellaneous accounts for rail transport, are handled by this directorate.

This directorate is responsible for the control of all rail transport in Canada, the issue of which is kept at a minimum. The railways are continuing to give satisfactory service in connection with the movement of troops to and from annual training camps.

Horse Strength—Permanent Active Militia

On March 31, 1930, the total number of horses in the Permanent Force, including Cavalry, Artillery, Infantry, Army Service Corps, and other units, was 574. Some difficulty is experienced in obtaining remounts of a suitable type for cavalry, artillery and other military purposes. The prices are on the upward trend, particularly in Eastern Canada. The Department of Agriculture maintains seven breeding stations: Roddick Lake, P.Q.; Chaffey's Locks, Ont.; Millarville, Alta.; Ailsa Craig, Ont.; Brampton, Ont.; Russell, Man.; and Kamloops, B.C.

Where such breeding stations are in operation the remounts from these localities are of a noticeably superior type.

Veterinary Service

This branch of the service is responsible for the care and health of horses, and the duties in connection with this service have been very satisfactorily carried out. The strength of the Royal Canadian Army Veterinary Corps has been reduced by one officer.

Telephones

By careful supervision the expenditure for this service has been maintained at the lowest cost. For the year 1929-30, the total cost for this service throughout the various districts was \$17,876.99.

Barrack Services

Included under this heading is the proper conduct of all duties in connection with the receipt, custody, issue and accounting for fuel, light, gas, water, disinfectants and paillasse straw, and also for the allotment of quarters.

The Royal Canadian Army Service Corps

The strength of this Corps on March 31, 1930, was 27 Officers and 239 Other Ranks.

This Corps functions throughout the Dominion for the purpose of providing, administering, issuing and accounting for supplies and forage, fuel, light and disinfectants; transporting troops, animals and stores by rail and water; appropriating, allotting and hiring accommodation for both Permanent and Non-Permanent Active Militia.

The Royal Canadian Army Service Corps (Permanent Force) also takes care of the instruction of the Canadian Army Service Corps (Non-Permanent Active Militia).

To take care of the exigencies of the service, a depot or detachment is located in each Military District, and the officer of the Royal Canadian Army Service Corps, who is designated as the District Supply and Transport Officer, is attached to the District Headquarters.

Training Depots are located at Halifax, N.S.; London, Ont.; Winnipeg, Man.; and Esquimalt, B.C.; and in addition to their normal duties, provide Royal and Provisional Schools of Instruction for the training of Royal Canadian Army Service Corps and Canadian Army Service Corps personnel.

A Royal Canadian Army Service Corps central School of Instruction is maintained at Winnipeg, with branches at the three other Depots. These branch schools are under the direct supervision and control of the main training centre at Winnipeg, for the purpose of ensuring that uniform instruction is maintained.

The majority of the Warrant Officers and senior N.C.O.'s of the Royal Canadian Army Service Corps have qualified at the central school at Winnipeg. The courses of instruction at Winnipeg, are of three months' duration, and deal very extensively with all subjects pertaining to Army Service Corps work in general. Junior Officers, on first appointment, are in the majority of cases, attached to Winnipeg in order to be given instruction in Corps duties.

The Royal Canadian Army Service Corps also furnish personnel for the Royal Canadian Army Service Corps steamers at Halifax, which are used for the purpose of conveying rations, supplies, etc., to the outforts, and are also used for towing targets in connection with Artillery practice.

Training and Instruction

The Royal Canadian Army Service Corps attended combined training at Petawawa and Sarcee Camps last summer with considerable benefit, as the personnel were able to put into practice the training they had secured at the Schools of Instruction.

It is very gratifying to note that the Canadian Army Service Corps (Non-Permanent Active Militia) continues to make rapid strides in training at Camp and local Headquarters. The Corps as a whole has displayed the greatest keenness in its duties, and has reached a very fair standard of efficiency. The esprit de corps is good.

There was considerable development in Mechanical Transport during the past year.

The total number of vehicles belonging to the Department of National Defence (less the Royal Canadian Air Force) was 126, on charge to the different branches as follows:—

R.C.A.S.C.....	102
Surveys.....	4
Ordnance (workshops and store lorries).....	7
Engineers.....	5
Artillery (5 six-wheelers and 1 Reo).....	6
Signals.....	2

During 1929 six-wheelers were introduced into the service.

Several tests of short duration had been made in Ottawa as to the feasibility of this type of vehicle; the tests included the traversing of unbroken ground and the climbing of steep gradients; also extensive tests were made with the overall tracks in mud and soft ground; these tests were considered to be far more severe than would be encountered on active service.

Probably the outstanding test was made during last winter, when a six-wheeler, carrying a 3,000- pound load, fitted with overall-tracks of a design made in the R.C.A.S.C. workshops at Ottawa, made a round trip of approximately 110 miles. It is considered a six-wheeled vehicle can negotiate any average road under winter conditions. Skis, also of the R.C.A.S.C. design, were used on this trip and it is to be noted that some of the roads travelled had snow drifts as high as five and six feet.

During the year the 3rd Medium Battery, R.C.A., was mechanized with six-wheelers and during the present fiscal year additional six-wheelers have been purchased to mechanize "A" and "B" Batteries, R.C.H.A.

The R.C.A.S.C. transport was maintained in a very satisfactory mechanical condition during the year.

Directorate of Equipment and Ordnance Services

1. Provision and distribution of clothing, equipment, arms and ammunition for Militia Services and of clothing and non-technical stores for the Royal Canadian Air Force have been carried out as usual during the year.

2. Equipment

- (a) Sufficient six-wheel motor lorries were purchased to equip A. and B. Batteries, R.C.H.A. These vehicles are available for the training of the Non-Permanent Artillery Units.
- (b) A supply of serviceable part worn rifle parts was obtained from War Office. A saving of approximately \$18,000 was effected.
- (c) Further stocks of parts for the conversion of 1,250 obsolete service arms to .22-inch rifles were purchased. This is in continuation of the policy of using cheaper ammunition for indoor musketry training.
- (d) Additional stocks of training respirators were provided during the year.

3. Dominion Arsenal

The output of the Dominion Arsenal, Quebec, included the following:—

Cartridges, S.A. Ball .303" cordite Mk. VII.....	6,232,570
Cartridges, Q.F. 18-pr. cases empty, Mk. III, brass.....	6,020
Primers percussion Q.F. cartridges, No. 1 Mk. II.....	18,090
Cartridges filled B.L. or B.L.C. 15-pr. 1 lb. 4 oz. blank.....	5,006
Cartridges, S.A. Ball, revolver .455".....	604,950
Chargers .303" cartridge.....	1,039,837
Puffs powder 4 diam. R.F.G. ²	4,054
Shell Q.F. filled H.E. 12-pr. 12 cwt. Mk. VIII.....	1,006

In addition manufacture and repair of ammunition boxes and also repair of other ammunition was carried out.

Considerable repair work was carried out at the plant and some new machinery was installed.

4. Chief Inspector of Ammunition

This branch carried out the inspection and proof of all ammunition manufactured and repaired at the Dominion Arsenal, Quebec, as well as 4,150,000 rounds of cartridge .22-inch purchased from the trade. This branch also supervised the manufacture of, and inspected and proved approximately 35,000 pounds of cordite M.D.T. 5/2 which was manufactured at Bekeil, P.Q., by the Canadian Industries Ltd.

Other special investigations of various natures were carried out in connection with explosives generally.

5. Inspector of Armourers Services

This officer made a complete inspection of the armourers shops in the ordnance depots throughout Canada.

The work of overhauling and repairing rifles, bayonets and scabbards received from overseas after the war was continued through the year in the workshops at Quebec.

This Officer also inspected and reported upon types of sporting rifles imported by various civilian firms throughout Canada.

6. Stocktaking

Weekly reports of stocktaking from all depots show that this important work is progressing favourably.

7. Amendment of Scales and Regulations

The revision and republication of scales of issue of peace equipments in accordance with the new vocabulary of stores was commenced during the year.

Of the 32 scales, 3 are in the hands of the printer, 10 are ready for printing, 9 have been redrafted and several others are being partially drafted by other branches.

Appendices I to XXII of Equipment Regulations, 1926, have been revised in accordance with the new sections and nomenclatures and are in the hands of the printer.

8. Establishment of the Royal Canadian Ordnance Corps

The authorized "Limited Establishment" of the Royal Canadian Ordnance Corps as at 31-3-30 was:—

Officers—36 (excluding seconded officers—4).

Other Ranks—413 (excluding Other Ranks carried supernumerary—4).

During the year the establishment was reduced by 10 Other Ranks.

The actual strength of the Royal Canadian Ordnance Corps as at 31-3-30 was:—

Officers—33 (excluding seconded officers—4).

Other Ranks—409 (excluding Other Ranks carried supernumerary—4).

The distribution of the strength by trades and occupations was:—

Ammunition examiners.....	6
Armament artificers.....	18
Armourers.....	29
Artisans—	
Blacksmiths.....	3
Carpenters.....	12
Painters.....	1
Saddlers.....	7
Tailors.....	4
Textile refitters.....	9
Caretakers.....	70
Clerks and storemen.....	243
Privates and boys under training in the following trades—	
Armourers.....	2
Clerks.....	2
Saddlers.....	2
Textile refitters.....	1
	<hr/>
	409

Discharges, Enlistments, etc.

The following are the particulars of enlistments, transfers and discharges, etc. carried out during the year:—

STRENGTH, DECREASE, RETIREMENTS, DISCHARGES, ETC.

Officers retired.....	4
Other ranks discharged (for ordinary reasons, time expired, etc.).....	24
Transferred to other units.....	4
Promoted to commissioned rank.....	2

STRENGTH INCREASE

Other ranks—enlistments.....	26
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TRANSFERS BETWEEN STATIONS

Officers.....	9
Other ranks.....	11

Courses of Instruction

Local courses of instruction were carried out as necessary at Ordnance Depots and during the year 22 Other Ranks successfully passed promotion examinations.

Courses of Instruction—Officers

Two Officers of the R.C.O.C. are at present attending the Military College of Science, Woolwich, England, one the "Advanced Class," the other the "Inspecting Ordnance Officers Course."

Long Service and Good Conduct Medal

During the year 14 Other Ranks of the Royal Canadian Ordnance Corps were awarded the above noted medal.

Inspections Carried out by R.C.O.C.

The D.E.O.S. inspected the Ordnance Depots at Kingston, Montreal, Quebec and Saint John during the year with satisfactory results.

The regular yearly inspection of all guns, howitzers, artillery vehicles, range finding apparatus, etc. on charge to N.P.A.M. Units was carried out by Ordnance Mechanical Engineers and all necessary repairs made; also alterations authorized by War Office List of Changes were carried out.

R.C.O.C. Armourers inspected and repaired where necessary all small arms and machine guns.

The clothing and equipment on charge to every unit of the Non-Permanent Active Militia (other than Artillery Units) was inspected, accounts checked and action taken to recover value for all deficiencies found by R.C.O.C. Officers during the year. They were also in attendance whenever a transfer of the command of a unit took place.

All war trophies allotted to various cities and towns were inspected and a report of condition was submitted to Deputy Minister, Public Archives, Ottawa.

Caretakers, Armourers and Drill Halls

Particulars of the number of military and civilian caretakers are as follows:—

Military caretakers.....	70
Civilian caretakers—	
(Chief), Grade III.....	9
(Full-time), Grade II.....	130
(Part-time), Grade I.....	65
	<hr/>
	274

Some recommendations from District Officers Commanding received during the year for extra caretakers could not be approved through lack of funds, but the most urgent cases were provided for. The situation generally can be regarded as satisfactory and is constantly being improved by reallotting caretakers now authorized and making adjustments wherever possible.

REPORT ON CIVIL AVIATION IN CANADA

All phases of civil aviation made great advance during 1929. The Dominion Air Service and Provincial Governments extended their activities in forest fire protection, air photography and transportation. Commercial operators increased the range and variety of their operations. Transportation in the far North has now become an efficient part of the transportation system. Air mail services have been extended over half the continent. The Prairie Provinces are now spanned by night air mails, and daily mail services are operated in Eastern Canada between Windsor and the Maritimes. The Flying Clubs have shown a marked increase in membership and in instructional flying. A large program of construction has been successfully completed at St. Hubert Airport and Airship Base. The Mooring Tower will be in readiness to receive the British Airship R 100 on its initial flight in May. Municipalities throughout the country are giving generous support to the establishment of aerodromes.

Civil Government Air Operations

The Director of Civil Government Air Operations is responsible to the Deputy Minister for the administration and control of all civil air operations required by any department of the Government.

During 1929, the Departments of the Interior, Agriculture, Indian Affairs, Post Office, Mines, Public Works, Railways and Canals and National Defence, availed themselves of aircraft for a variety of purposes.

Units under the control of the Director during 1929, were: (a) Headquarters, Ottawa; (b) Vancouver, B.C.; (c) High River, Alta.; (d) Winnipeg, Man.; (e) Ottawa, Ont.; (f) Dartmouth, N.S.

Forest fire protection operations for the Department of the Interior, Forestry Branch, covered approximately 92,005,466 acres of forest land in Manitoba, Saskatchewan and Alberta.

Eight self-contained photographic detachments were engaged in air photography in various parts of the country, and during the year 97,742 photographs were taken, covering an area of 74,655 square miles.

The total flying time for all units during the year was 12,256 hours and 39 minutes.

High River Air Station

During the year a total of 1,393 hours 5 minutes flying was done. The establishment consisted of 5 officers, 21 airmen. Six D.H. Moth Landplanes were used. The operations comprised fire detection patrols of the Bow River, Crowsnest and Clearwater Forest Reserves, comprising 3,260,826 acres. Temporary landing and refueling facilities for this work are based at Rocky Mountain House and Pincher Creek.

An experimental service for the protection of a large area of forest land in the Peace River District, was again operated from a base located at Grand Prairie. In conjunction with the Royal Canadian Corps of Signals, reliable voice communication is maintained from aircraft in flight, up to a distance of 200 miles. During the season 4 fires were observed in the Bow River area, and 39 in the Peace River District.

Winnipeg Air Station.

The work of this Station was increased considerably during 1929. Additional aircraft was provided and bases were improved.

The total flying time for the year was 5,684 hours 32 minutes.

The establishment consisted of 22 officers and 111 airmen. Thirty-seven aircraft were used.

The organization of this Station was: Headquarters at Winnipeg, with the following sub-bases: Lac du Bonnet, Norway House, Cormorant Lake, Ladder Lake, Lac la Ronge, Winnipegosis, Berens River, Thicket Portage, and detachments as follows: No. 1 General Purpose, Dusting Flight and Transportation Flight. All bases were equipped with radio and pigeon services, providing a means of communication between the units and Headquarters at Winnipeg.

Flights were made for the following purposes: Fire protection patrols, suppression action on fires located, air photography and transportation.

The total forest area under protection was approximately 57,124,994 acres. During the season 325 fires were detected and suppression action taken as required.

Ottawa Air Station

The base of Ottawa Air Station was moved from Shirley's Bay to the new aerodrome at Rockcliffe. During the year the total flying time was 1,772 hours 6 minutes.

The establishment consisted of 14 officers and 54 airmen. Seventeen aircraft were used. The operations comprised air photography, instruction, transportation and training, tests and experimental flights, forest dusting operations in the vicinity of West Tree, Ont., and Manicougan, P.Q., air routes and air mail investigation between Halifax, Montreal and Ottawa.

Air Photography

No. 1 Photographic Detachment.—Vertical and oblique photography in British Columbia. Two Fairchild FC. 2. W. aircraft were operated. The total flying time was 450 hours 20 minutes.

No. 2 Photographic Detachment.—Vertical and oblique photography in Manitoba and Ontario. Two Fairchild FC. 2. aircraft were operated. The total flying time was 552 hours 37 minutes.

No. 3 Photographic Detachment.—Vertical and oblique photography in western Ontario, Saskatchewan, and Manitoba. Two Vedette flying boats were operated. The total flying time was 371 hours 50 minutes.

No. 4 Photographic Detachment.—Vertical and oblique photography in northern Saskatchewan and Ontario. Two Vedette flying boats were operated. The total flying time was 416 hours 5 minutes.

No. 5 Photographic Detachment.—Vertical and oblique photography in western Ontario, northern Manitoba, and northern Saskatchewan. Two Vedette flying boats were operated. The total flying time was 280 hours 45 minutes.

No. 6 Photographic Detachment.—Vertical and oblique photography in eastern Ontario and Quebec. Two Fairchild FC.2.W. aircraft were operated. The total flying time was 676 hours 33 minutes.

No. 7 Photographic Detachment.—Vertical and oblique photography in eastern Ontario and Quebec. Two Fairchild FC.2.W. aircraft were operated. The total flying time was 356 hours 41 minutes.

No. 8 Photographic Detachment.—Vertical and oblique photography in the Maritime Provinces and eastern Ontario. Two Fairchild FC.2. aircraft were operated. The total flying time was 302 hours 15 minutes.

Civil Aviation Division

The Controller of Civil Aviation is responsible to the Deputy Minister of National Defence for the administration of air regulations, and the control of commercial and private flying in Canada; the location and equipment of airways, construction of airship bases and the oversight of flying clubs. The branch has three divisions: Air Regulations, Airways, and Information.

Statistics

There were in Canada 85 commercial aircraft operators; 445 licensed civil aircraft; 445 licensed commercial air pilots; 370 private air pilots; 308 licensed air engineers; and 71 licensed aerodromes.

Comparative figures showing flying activities are given below for 1928 and 1929, which include the Ontario Provincial Air Service, whose pilots flew approximately 669,423 miles, and the Light Aeroplane Clubs, whose pilots flew approximately 1,300,000 miles; in fact all flying done in Canada except that of the Air Services of the Department of National Defence and privately owned aircraft.

	1928	1929
Number of Flights.....	75,285	144,143
“ Hours.....	43,071	79,786
“ Passengers.....	74,669	124,751
“ Passenger Miles.....	2,883,782	6,114,997
Pounds of Freight.....	2,404,682	3,903,908
“ Mail.....	316,631	430,636

Commercial flying comprised the following:—

- (a) Transport Services.—Scheduled mail, passenger, freight and express routes.
- (b) Commercial Services.—Including flying instruction, air photography, timber cruising, forest and fishery patrols, passenger and express service, “taxi,” sightseeing tours, exhibition flying, etc.
- (c) Mining Companies.—Mining, exploration and prospecting.
- (d) Ontario Provincial Air Service.—Forest fire protection, timber cruising, air photography and transportation.
- (e) Light Aeroplane Clubs.—Instruction and exhibition flying.

The greatest amount of flying was done in Canada by the fixed-base and itinerant operator, comprising flying instruction, air photography, timber cruising, forest and fishery patrols, passenger and express services, “taxi” and sightseeing tours, exhibition flying, etc. Seventy-three operators were engaged, of which 16 conducted schools of flying. Five hundred and sixty pupils received flying instruction and nearly 3,500,000 miles were flown.

Four mining companies employed aircraft as an aid to exploration and prospecting in various parts of Canada; their pilots flew a distance of 527,908 miles, as far north as Herschel Island and Coronation Gulf.

Commercial Companies

In New Brunswick, Nova Scotia and Prince Edward Island, two firms operated in passenger and mail carrying and flying instruction.

In Quebec twenty-one firms were engaged in aviation, their activities comprising mail, express and passenger carrying, instruction, exhibition flying, air photography, forest reconnaissance and protection, etc.

In Ontario thirty-three firms were engaged in aviation. A large amount of flying was done covering mail, express and passenger carrying, aerial photography, exhibition flying, instruction, etc.

In Manitoba, Saskatchewan and Alberta, twenty-one companies operated aircraft in passenger, mail and freight transportation, instruction and exhibition flying, air photography, etc.

In British Columbia, six companies have done a large amount of flying, including transportation of passengers and freight, forestry patrols, flying instruction, air photography, etc.

In the Yukon and Northwest Territories, two companies were engaged in passenger, freight and mail carrying, reconnaissance and flying instruction.

Provincial Operations

In British Columbia the Forestry Branch of the British Columbia Department of Lands awarded a contract to Western Canada Airways Limited, for forest dusting operations over an area of forty acres of forest land at Indian River, attacked by the Hemlock Looper Larvae. Also a contract to Dominion Airways Limited, for forest protection patrols and sketching in the Kootenay and Arrow Lakes region, covering an area of about 3,500 square miles.

In Ontario, the Provincial Government maintains its own Air Service as part of the Forestry Branch of the Department of Lands and Forests. This Service owns and operates twenty-five aircraft. Its main base is at Sault Ste. Marie, where a large and completely equipped hangar has been erected, complete with workshops and store-rooms. The flying operations are mainly in the district lying north and west of the Ottawa river, lake Nipissing and French river. Forest fire detection and suppression patrols, forest mapping by photography, sketching for inventory work, and transportation to the outlying parts of this district, have been carried out. The main operating bases are at Sudbury, Orient Bay and Sioux Lookout, and subsidiary bases are maintained during the operating season as required. The total flying time for the year was 11,602 hours.

In Quebec, the Provincial Forest Service carry out similar work by contract with commercial aviation firms. Their fire patrol system is not on the same scale as in Ontario, but a large amount of forest type mapping has been done. Contracts were let to the Compagnie Aerienne Franco Canadienne for vertical photography in the province, covering an area of 7,100 square miles. Aerial photography was carried out under contract by Canadian Airways Limited, covering an area of some 700 square miles.

Air Mail

During 1929, sixteen regular air mail routes were operated under Post Office contracts with commercial firms. During the year 430,636 pounds of mail was conveyed. The total length of air mail routes was 5,139 miles. 2,162 single trips were completed out of 2,344 scheduled. The approximate total distance flown by mail contractors was 490,640 miles.

The following services have been provided by the Post Office Department under contracts. Summer Services: Rimouski-Montreal; Montreal-Ottawa; Lac du Bonnet-Bissett-Wadhope. Winter Services: Leamington-Pelee Islands; Quebec-Seven Islands; Seven Islands-Anticosti; Moncton-Magdalen Islands; Moncton-Charlottetown. Yearly Services: Montreal-Detroit; Montreal-Albany; Kissinging-Cranberry Portage; Sioux Lookout-Gold Pines-Red Lake-Narrow Lake-Jackson Manion; Toronto-Buffalo; Calgary-Regina; Regina-Winnipeg; Regina-Edmonton; Fort McMurray-Aklavik; Oskalanee-Chibougamau.

In addition to the regular mail contracts, an experimental service is being operated under contract between Montreal and Saint John.

A special service, authorized under special arrangement by the Post Office, is being operated between Whitehorse and Dawson, Yukon Territory.

The following sections have been developed for night flying.—*Winnipeg-Calgary*: Twenty-one intermediate aerodromes were selected and fifteen 24" Electric Rotating Beacons of two million candle power, with 14" course lights,

have been installed. Also 48 Acetylene Air Beacons of 7,000 candle power, installed at 10 mile intervals. Radio Beacon Stations have been established at suitable intervals.

Hamilton-Windsor: Six 24" Electric Rotating Beacons and eleven Acetylene Air Beacons, have been installed over the Montreal-Detroit route.

The following sections have been surveyed (a) following Canadian National Railway from Edmonton to Vancouver; (b) following Canadian Pacific Railway from Calgary to Vancouver; (c) following Canadian Pacific Railway from Lethbridge to Vancouver; (d) through Northern Ontario connecting Winnipeg with Montreal and Toronto.

The object of these surveys is to select the most feasible route for the completion of the Trans-Canada Air Mail Services.

St. Hubert Airport and Airship Base

The construction of an airship base and aerodrome at St. Hubert follows the decision of the Dominion to participate in Empire Air Communications. Construction has been proceeding on the airship base for the reception of the British Airship R 100, which is expected to make its first Trans-Atlantic passage in May, 1930. A mooring tower has been erected and equipped with the most efficient machinery in the world. A triangular site containing 792 arpents, was purchased in 1928, adjacent to St. Hubert Station, some seven miles east of Montreal on the Chambly Highway.

During 1929 the tower and base housing were completed and three electrical mooring winches erected and tested. A silicol process hydrogen plant consisting of two units generating a minimum of 20,000 cubic feet per hour, and a reserve gas holder with a capacity of 50,000 cubic feet was erected. The Pumping Station and Filtration plant, etc., were completed. The Radio Station was completely installed and is in working order. No. 2 hangar 200' x 125' was erected. Two hard-surfaced runways and large section of the taxiway were built. The administration building to house the aerodrome control staff, wireless and meteorological services, Post Office, Customs Department Staff and Passengers' waiting room were completed. A contract for night lighting was awarded and progress made on the erection of beacons, etc.

A number of commercial aircraft operating companies use St. Hubert for passenger, freight and mail services. A school of flying is conducted and the Montreal Light Aeroplane Club have rented space for their operations. It is the terminal for the International Air Services between New York and Montreal. Landing fees, storage charges and terms on which land may be leased to commercial operators have been drawn up.

Light Aeroplane Clubs.

To stimulate interest in flying, to promote the knowledge and use of aviation among the rising generation, and to encourage the provision of flying fields, the Dominion Government has lent assistance in the formation of light aeroplane clubs in the chief centres of population. Two light aeroplanes, complete with engines are issued to each club approved by the Honourable the Minister of National Defence. Each club receives a grant of \$100 for each ab initio pupil trained by the club. Each club must provide its own flying field, arrange for the services of an instructor and air engineer and have at least thirty members ready to qualify as pilots, and have not less than ten members already qualified. During 1929, 23 clubs were active. These clubs have a total membership of 5,233. During the year a total of 16,613 hours were flown and a total of 49,708 flights were made. 183 Private and 58 Commercial licences were obtained by members.

Aeronautical Engineering Division

The Aeronautical Engineering Division under the Deputy Minister of National Defence acts in a consultant capacity in regard to all technical matters for the Military Air Service, the Civil Government Air Operations Branch, and through the Controller of Civil Aviation for civil aviation. The classification, compilation and dissemination of technical material to all branches of aeronautical industry in Canada forms one of the duties of the Division.

The work is organized under the following sections: Research, Airworthiness and Inspection. Owing to the rapid growth of the industry in recent years, each of these sections has been overtaxed, and at the present time is undergoing further expansion in both staff and equipment.

One of the most outstanding items of interest of the year is the expansion of the activities of the National Research Council to include the establishment of a section devoted exclusively to Aeronautic Research. The primary equipment which is now in the process of design and construction is a Wind Tunnel (9 feet diameter), an engine test bed (capacity 1 to 1,000 horsepower) and a water channel (400 feet in length) for testing seaplane floats and hulls. The Research Council has been very fortunate in obtaining the services of such distinguished authorities as Prof. J. H. Parkin, University of Toronto, Dr. Boyle, etc.

It can easily be conceived that with this addition to the aeronautical research facilities of the country, Canadian manufacturers and operators of aircraft and engines will benefit to a considerable extent. Tests which were formerly carried out on behalf of the National Research Council under the direction of Prof. J. H. Parkin, will now be done under the same direction at the National Research Council's own laboratories in Ottawa.

Research

In the past year there has been a great deal of experimentation done on new aircraft of Canadian, British and American manufacture. This work was requested by the Air Services in order to determine suitable types for various operations. To do this the R.C.A.F. test flight establishment had to be augmented, and a detailed program of work regarding type tests for comparison was prepared.

The new types which have been investigated during the current year are as follows:—

<i>Name of Aircraft</i>	<i>Proposed Duty</i>
Vickers Vancouver	Forest suppression and Freight carrier.
Ford Trimotor (Float and Ski equipped)	Forest dusting and transport.
Vickers Vedette Mk. V. (Wright J.6 300 H.P. engine)	Photographic and transport.
Curtiss-Reid Rambler	Light aeroplane training.
Avro Avian	Light aeroplane training.
Vickers Vigil	Forest patrol.

In addition to supervising the practical testing of these aircraft, this division has made recommendations which arose from the department's experiences, to various manufacturers to improve their product and facilitate its adaptability to specific operations.

During the past summer a great deal of experimental work was done in connection with the development of more efficient floats for aircraft.

At the same time a great deal of work was carried out in developing a water rudder and drogues to improve the controllability of seaplanes when on the water. It may also be mentioned that a combination ski float gear was put through its water tests. A good deal of development work has been done on geared engines, also on steel propellers of the adjustable type.

During the year several aircraft manufacturers have submitted their aircraft or plans of their aircraft to the Department for examination and test, with a view to satisfying the specified requirements for certain operations.

The problem of combination ski wheel and ski float gear is still in the development stage, but from the work carried out this year it is thought that satisfactory combination devices will soon be available.

The difficulties of winter flying has taken a great deal of this section's attention in matters such as effective engine cowlings, carburettion, method of starting engines when cold, and efficient skis. Some work has also been done in developing a wind indicator, which may be thrown from the aircraft by the pilot to locate the direction of the wind where no other method of indication exists.

Airworthiness.

In connection with the issuance of type certificates, the airworthiness section carries out detail calculations to establish the structural strength of all aircraft and components built in Canada. It is in close co-operation with both the United States and the English authorities regarding domestic requirements and the methods of stress analysis. The Airworthiness Section maintains at the same time the requirements laid down by the International Commission for Air Navigation for all aircraft built in Canada for export.

During the year the method of analyzing the loads obtained in characteristic attitudes of flight has been revised; the extent of investigations has been increased to include detail balance and performance calculations, also the stressing and performance of airscrews.

From time to time descriptive detail pertaining to the method of aircraft stress analysis and aerodynamic balance calculation has been compiled by this section and promulgated to the industry.

Due to the rapid growth of the aircraft industry in Canada, the work of this section increases yearly, and although during the year there has been an increase in the staff, still further increase is now being contemplated.

Inspection.

This section of the branch carries out the actual detail examination of the aircraft and component parts during construction.

The purpose of the inspection is to insure the highest standard of workmanship and also the specified quality of materials prior to the granting of certificates.

It has not been the policy of the department to carry out detailed inspection of aircraft under construction, *except in the case of new aircraft* manufacturing companies, but the inspection has been limited to periodical inspection during the course of manufacture, relying upon the inspection carried out by the manufacturing companies themselves for all detailed inspection.

Aircraft Inspection Detachments are now stationed at Montreal, Ottawa, Toronto and Winnipeg, and provision is being made for the establishment of another detachment in Vancouver.

During the past year this section has done a considerable amount of work in connection with reports on crashed aeroplanes, and in many cases has been able to determine the weaker parts of the structure and advise certain modifications.

At the present time aircraft manufacturers are introducing new materials in the construction of aircraft, "Stainless steel" being one of the most important. Any such departures from regular practice necessitates much more thorough inspection during construction and more frequent inspections later on to determine the durability of the materials.

In the inspection records which accumulate from year to year, there is a great deal of valuable data pertaining to the deterioration, etc., of various aircraft materials. At some future date it is intended to use this information in the preparation of a treatise on the deleterious effect of Canadian conditions on aircraft materials and the general deterioration of aircraft.

REPORT OF THE FINANCIAL SUPERINTENDENT (1929-30)

The expenditure and revenue statements included in this report relate only to Militia and Air Services. Naval expenditure and revenue statements will be found in the report of the Naval Service.

Following are tables of expenditure and revenue for the fiscal years 1928-29 and 1929-30. Expenditures on account of Civil Government Salaries and Contingencies are not included in these tables but are shown in statement No. 3, Appendix "A."

Expenditure—Militia, Air and General Services

Year	Militia Votes	Air votes	General Votes	Adjustment of War Claims	Imperial War Graves	Battle-fields Memorials	Total
1928-29.....	11,045,827	5,040,505	239,950	112,492	573,698	160,873	17,173,345
1929-30.....	11,163,170	5,920,670	236,693	88,607	573,794	168,967	18,151,901
Decrease.....			3,257	23,885			
Increase.....	117,343	880,165			96	8,094	978,556

Credits—Revenue—Militia, Air and General Services

Year	Militia Services	Air Services	N.W.T. Radio Services	Demobilization Previous Years	Total
1928-29.....	\$ 216,333	\$ 34,888	\$ 35,225	\$ 730,080	\$ 1,016,526
1929-30.....	219,452	89,999	39,250	476	349,177
Decrease.....				729,604	667,349
Increase.....	3,119	55,111	4,025		

The following statements of expenditure and revenue will be found in Appendix "A":—

1. Appropriation Accounts, 1929-30.
2. Revenue, 1929-30.
3. Comparative statement of Expenditure and Revenue for ten years 1920-21 to 1929-30.
4. Expenditure on account of Adjustment of War Claims, 1929-30.

The increase in expenditure over the previous year was due mainly to the following:—

Militia Votes—

- (a) The carrying out of necessary repairs to the Ordnance Depot at Kingston, which was damaged by fire in August, 1929;
- (b) The partial replacement of Militia clothing which was destroyed by fire while stored in the Ordnance Depot, Kingston;
- (c) Repairing Quebec Gates and Walls.

Air Votes—

- (a) Extension and intensification of aerial forestry operations in Manitoba, Saskatchewan and Alberta;
- (b) Increased operations in connection with aerial photographic surveys, etc., for other Government Departments;

- (c) Providing wireless equipment and ground services, route lighting equipment, etc., for air mail routes;
- (d) Construction of aerodrome and airship base at St. Hubert, P.Q.
- (e) Commencement of construction of new combined land and seaplane training station at Trenton, Ont.

The large decrease in revenue under the heading Demobilization, Previous Years, is explained by the fact that settlement with the Imperial Government was effected in 1928-29 of certain outstanding claims for war expenditures. There were no accounts of this nature to be recovered in 1929-30.

The allotment system of controlling expenditure, which has been successfully employed for several years in connection with Militia Training and Cadet Services, was applied to the Permanent Force Vote during the year under review, resulting in a much more effective control of expenditure.

The analysis of expenditure and costing system in connection with radio services performed by the Royal Canadian Corps of Signals were continued with satisfactory results.

REPORT OF THE ASSISTANT DEPUTY MINISTER

Submitted herewith are reports relating to (1) Civilian Staff, (2) Printing and Stationery, and (3) Central Correspondence Registry.

(1) Civilian Staff

During the fiscal year some minor changes in organization and classification have been carried out by the Civil Service Commission at the request of the Department.

The Comparative Table given below shows the number of civilian employees (Permanent and Temporary) in the Department of National Defence at Ottawa and elsewhere, and the amounts paid in salaries, on April 1st, 1929, and April 1st, 1930.

This statement shows increases in the number of permanent employees amounting to 30 at Ottawa and 31 outside Ottawa. The increase at Ottawa is principally due to the permanent appointment, in the Air Service Branch, of temporary employees whose duties, permanent in nature, have become necessary owing to the rapid expansion of this branch of the service. It will be noted that there was a decrease of 23 in the number of temporary employees.

The increase outside of Ottawa is also due in part to the permanent appointment of temporary employees in the Air Service Branch. In the Military Districts there have been a number of permanent appointments of temporary employees who have for some years been performing duties of a permanent nature and whose appointment on a permanent basis was in the public interest.

	No. of Employees		Amount of Salaries	
	April 1, 1929	April 1, 1930	April 1, 1929	April 1, 1930
			\$	\$
<i>At Ottawa—</i>				
Permanent.....	389	419	57,451 47	61,474 76
Temporary.....	92	69	9,512 34	6,903 23
<i>Outside Ottawa—</i>				
Permanent.....	290	321	38,103 51	41,775 05
Temporary.....	439	439	35,710 92	35,077 90
	1,210	1,248	140,778 24	145,230 94

These figures do not include 292 factory employees at the Dominion Arsenal, Quebec, nor 144 workmen employed at the Naval Dockyards, Halifax and Esquimalt.

(2) Printing and Stationery

Statement showing work performed and expenditure.

	1928-29	1929-30	Increase or Decrease
Printing Requisitions issued.....	1,188	1,920	— 168
Stationery requisitions issued.....	2,697	2,707	+ 10
Record of sales of Military books.....	2,837·61	3,215·26	+ 377 65
Expenditure for Printing.....	29,267·22	25,442·09	— 3,825 13
“ Stationery.....	19,511·47	15,052·23	— 4,459 24
Express and Freight.....	2,691·57	3,645·24	+ 953·67

+ Increase. — Decrease.

(3) Correspondence Registry

	1928-29	1929-30	Increase or Decrease
Files charged-out.....	237,790	217,198	- 20,592
Incoming files recorded or passed.....	416,829	463,244	+ 46,415
Loose papers received.....	244,632	271,716	+ 27,284
Files created.....	12,850	14,157	+ 1,307
	912,101	966,315	

+ Increase

- Decrease.

REPORT OF THE JUDGE ADVOCATE-GENERAL

Courts-Martial

During the fiscal year ending March 31, 1930, 50 district courts-martial were convened and held, this being a decrease of 7 compared with the number of such courts held in the preceding year; 47 of these courts-martial were for the trial of military personnel and 3 for the trial of personnel of the Royal Canadian Air Force.

It is evident, from a review of the proceedings of courts-martial held during the last fiscal year, that considerable improvement is taking place in the knowledge of military law and court-martial procedure of officers performing court-martial duty, and this was reflected in the comparatively small number of observations it was necessary for the reviewing officer to make. Such errors and irregularities as did occur were not of a particularly serious nature and in no case did they invalidate the finding. In only one instance was it necessary for the Judge Advocate-General to advise that the finding and sentence of a court-martial, which had been confirmed, should be quashed.

Legislation

During the year under review the only legislation drafted by the Judge Advocate-General was a small Bill making certain amendments to the Militia Pension Act so as to remove an anomalous situation respecting the provision of pension for the widow of an officer who dies in the service, when such officer comes within that class of officers to which subsection (2) of section 4 of the Militia Pension Act relates.

Investigations, Courts of Inquiry, Committees, etc.

The Judge Advocate-General carried out several investigations of an important nature and was also in attendance at a number of Courts of Inquiry. In addition, his duties as Chairman of the respective Orders Committee of the three services encroached, to a considerable extent, upon the time available for the routine duties of his office.

Instruction in Military Law

During the year under review, a course of instruction in military law for officers of the Permanent Force was organized and carried out. The preparation of the various sets of questions, precis and comments, together with the marking of completed papers, was all done in the office of the Judge Advocate-General, the course itself being administered by the General Staff, which branch has requested that a similar form of instruction be carried out during the coming year.

General

The volume of references and requests for opinions was in excess of the preceding year and the number of daily interviews showed a decided increase.

The expansion of the Air Mail Service, necessitating the acquisition of beacon sites and intermediate landing fields, resulted in a considerable increase in the work of the office, due to the numerous contracts and agreements which were required, many of them being of a novel type for which no precedents existed.

The development of new ideas in the field of aeronautics very frequently necessitated a revision of contracts for the construction of aircraft whilst such construction was in progress, so as to enable the department to obtain the full advantage of such development. This necessitated extreme care being taken so as to ensure that while the department was being fully protected, the several manufacturers were not subjected to conditions impossible of fulfilment.

During the year there were made by the Governor General in Council two references pertaining to the regulation of aerial navigation, and the liability of a province to reimburse His Majesty, in the right of the Dominion, for expenditure occasioned through the furnishing of troops in aid of the civil power upon a requisition from the Attorney-General of the province concerned. With respect to both these references, considerable data and preliminary information was requested of, and furnished by, the Judge Advocate-General.

Due to the increase in the volume of work which the office is required to perform, a departmental solicitor was appointed by the Civil Service Commission, this being a civilian appointment. The departmental solicitor assists the Judge Advocate-General and acts for him in his absence.

REPORT OF THE DIRECTOR OF CONTRACTS

The volume of work performed in the branch during the fiscal year ending March 31, 1930, was greater than in previous years. The different requirements of the three services, Naval, Militia, and Air, made necessary the purchase of an almost inconceivable variety of Stores of which the following is a partial list—

Uniform and other clothing of different patterns.
 Cloths, serges, frieze, flannel, drill, canvas, etc., required for the manufacture of clothing.
 Boots, shoes, overshoes, and rubbers.
 Furniture.
 Electrical equipment.
 Guns and gun carriages.
 Automobiles, trucks and other military vehicles.
 Aircraft, aero engines, and other necessary flying equipment.
 Ammunition.
 Paints, varnishes, and oils.
 Telegraph and wireless apparatus.
 Armament and torpedo stores.
 Provisions, fuel and forage.
 Medical and dental supplies.

In addition to the purchase of the foregoing supplies, contracts were also made for the construction of buildings, the converting and reconditioning of aircraft, the overhaul of aircraft engines, snow cleaning, chimney sweeping, scavenging, laundry, and cartage, and for various other services necessary for the Permanent and Non-Permanent Forces at different points throughout the country. Supplies were also purchased during the year for the use of the Imperial Navy at Bermuda Dockyard.

The practice is to invite competitive tenders before awarding contracts, thus enabling the Department to secure the Stores or Services required at the most favourable prices.

It is the policy, wherever possible, to purchase goods of Canadian manufacture and where this is not possible, to give the preference to supplies manufactured within the Empire.

The following statement will, to some extent, show the volume of work performed in the branch during the year:—

Requisitions received.....	3,714
Contracts placed.....	4,361
Customs entries passed.....	766
Requisitions placed on Public Works Department for office furniture, alterations to offices, etc.....	618
Requisitions checked, covering purchases and services for which orders were placed by duly authorized officers, at Ottawa, and outside points, and not by the Contracts Branch.....	8,787
Cases and packages handled at the branch inspection room.....	44,963

The approximate value of the contracts awarded was \$4,400,000.

During the year, under review, the department purchased 89 aircraft of different types, complete with Engines, and 23 aircraft, without engines, for training, photography, forestry patrol and other purposes. Orders were also placed for 27 Aero engines of different manufacture.

Almost all the stores purchased were either in accordance with departmental specifications, sealed patterns or submitted samples. The stores delivered at Ottawa were subjected to the most careful inspection by the departmental inspectors and any which did not conform to the specifications or patterns were rejected.

Provisions, fuel, stores, etc., ordered for delivery at different points throughout the country were inspected under the supervision and direction of the Officer Commanding the Military District, the Dockyard Naval Store Officer, or the Officer Commanding the Air Station concerned.

APPENDIX "A"

The following are statements showing:—

- (1) Appropriation Accounts, 1929-30.
- (2) Revenue, 1929-30.
- (3) Comparative Statement of Expenditure and Revenue for ten years 1920-21 to 1929-30.
- (4) Expenditure on account of Adjustment of War Claims, 1929-30.

STATEMENT No. 1—Appropriation Accounts, 1929-30—Militia and Air Services

Appropriation	Amount authorized	Expenditure	Appropriation unused	Appropriation exceeded	Remarks
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
MILITIA SERVICES:—					
<i>Main Appropriations—</i>					
Administration.....	317,000 00	296,191 63	20,808 37		Printing and Stationery orders not completed in time for payment; also temporary vacancies in Staff appointments.
Cadet Services.....	500,000 00	499,973 00	26 91		
Contingencies.....	40,000 00	39,195 13	804 87		
Engineer services & works...	830,000 00	823,520 55	6,479 45		
General stores.....	891,800 00	890,941 80	858 20		
Manufacturing Establishments.....	587,000 00	586,062 52	937 48		
Non-Permanent Active Militia.....	2,315,000 00	2,313,939 03	1,060 97		
Permanent Force.....	4,950,000 00	4,948,343 85	1,656 15		
Royal Military College.....	375,000 00	374,724 35	275 65		
Topographic Survey.....	45,000 00	44,999 33	67		
Transport and Freight.....	215,000 00	214,857 84	142 16		
	11,065,800 00	11,032,749 12	33,050 88		
<i>Miscellaneous Appropriations—</i>					
Repairs to Gates & Walls, Quebec.....	50,000 00	49,923 96	76 04		Time lost to June 28th, 1929, as civilian employee at Quebec deducted from Grant.
Compassionate Grants to E. Giroux.....	1,350 00	897 75	452 25		
to C. F. Kilpatrick.....	1,200 00	1,200 00			
	52,550 00	52,021 71	528 29		
<i>Governor General's Warrants—</i>					
Repairs to Ordnance Building Kingston, P.C. 1979 (Engineer Services & Works)...	18,400 00	18,400 00			
Clothing destroyed by fire, Kingston, P.C. 2180 (General Stores).....	60,000	59,998 81	1 19		
	78,400 00	78,398 81	1 19		
Total Militia Services.....	11,196,750 00	11,163,169 64	33,580 36		
AIR SERVICES—					
<i>Main Appropriations—</i>					
Civil Air Operations.....	3,187,829 98	3,187,684 44	145 54		
Civil Air Operations Expended by Dept. of Public Works.....	785,639 02	785,639 02			
	3,973,469 00	3,973,323 46	145 54		
Royal Canadian Air Force...	1,947,694 00	1,947,346 51	347 49		
	5,921,163 00	5,920,669 97	493 03		
<i>Miscellaneous Appropriation—</i>					
Legal Expenses Aero Navigation.....	13,000 00		13,000 00		Case not decided by courts Revoted 1930-31.
Total Air Services.....	5,934,163 00	5,920,669 97	13,493 03		

STATEMENT No. 1—Appropriation Accounts, 1929-30—Militia and Air Services—*Concluded*

Appropriation	Amount authorized	Expenditure	Appropriation unused	Appropriation exceeded	Remarks
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
GENERAL SERVICES—					
Civil Govt. Salaries (Including Statutory \$10,000).....	774,875 00	743,845 01	31,029 99		Changes in personnel and classification, temporary vacancies due to resignations, etc., positions abolished during the year.
Civil Government Contingencies.....	70,000 00	69,749 35	250 65		
Civil Pensions.....	1,415 42	1,385 42	30 00		One pensioner (minor) became of age.
Construction of Magazine, Halifax, N.S.....	100,000 00	95,146 26	4,853 74		Certain equipment cost less than expected; also installation of other equipment provided for could not be made before Mar. 31st owing to lateness of delivery.
Total General Services.....	946,290 42	910,126 04	36,164 38		
Other Services—					
N.W.T. Radio Services (MacKenzie Basin System)	140,500 00	140,161 37	338 63		
Canadian Battlefields Memorials.....	170,000 00	168,966 63	1,033 37		
Imperial War Graves Commission.....	573,780 00	573,793 83		13 83	
Adjustment of War Claims, (Militia).....	130,000 00	88,606 71	41,393 29		Expenditure was less than anticipated.
Total Other Services.....	1,014,280 00	971,528 54	42,765 29	13 83	
Total Militia, Air, General & Other Services.....	19,091,483 42	18,965,494 19	126,003 06	13 83	
Statutory—					
Gratuities to families of Deceased Officials.....		1,257 66			
Special Account—					
Toronto Barrack Site.....		1,250 65			
Grand Total expenditure (except Naval).....		18,968,002 50			

For Naval Expenditure see separate report of Naval Services.

STATEMENT No. 2—Revenue—Militia and Air Services, Fiscal Year, 1929-30

Militia Services—	\$ cts.	\$ cts.
Barrack damages.....	147 45	
Commission on pay telephones.....	9 30	
Discharges by purchase.....	6,791 00	
Labour.....	2 40	
Railway subsidies.....	855 38	
Refund previous years expenditure.....	5,440 10	
Rent stores and camp equipment.....	7,647 18	
Rent military properties.....	13,034 39	
Sales, ammunition, stores and clothing.....	3,639 61	
Sales, books, maps, etc.....	5,267 85	
Sales, cast horses.....	3,625 50	
Sales, condemned stores and scrap.....	13,909 84	
Sales, government property.....	8,282 50	
Sales, government property (interest).....	772 64	
Sales, medals and ribbons (lost and replaced).....	7 82	
Snow dumping privileges.....	260 00	
Wood cutting privileges.....	189 25	
		69,882 21
Bank interest.....		61 94
Fines and forfeitures.....		511 18
Pensions (deductions).....		129,069 72
Premium, discount and exchange.....		1 55
Regimental trust fund.....		105 14
Royal Military College (cadet fees).....		19,820 00
		219,451 74

STATEMENT No. 2—Revenue—Militia and Air Services, Fiscal Year, 1929-30—*Concluded**Northwest Territories Radio Services—*

Receipts from wireless stations.....	\$	cts.
	39,249	53

Air Services—

	\$	cts.
Air transportation.....	1,438	00
Air harbour licences.....	380	00
Air worthiness certificates and stress analysis.....	1,245	00
Barrack damages.....	53	50
Commission on pay telephones.....	2	85
Discharges by purchase.....	2,804	00
Ground fees and hangar rentals.....	5,922	00
Landing and storage fees.....	5,306	11
Passenger fees.....	275	70
Private pilots licences.....	628	00
Registration fees.....	1,395	00
Rents, government property.....	3,676	62
Rents, stores and camp equipment.....		45
Sales, books, etc.....	762	44
Sales, surplus stores.....	3,119	00
Sales, government property.....	350	50
Stores and clothing.....	99	99
Tractor service and labour.....	127	70
Receipts from wireless stations.....	6,601	16
Refund previous years expenditure.....	38,214	94
		<hr/>
	72,402	96
Bank interest.....		37
Fines and forfeitures.....		220 00
Pensions (deductions).....	17,374	32
Premium, discount and exchange.....		1 57
		<hr/>
	89,999	22
		<hr/>

STATEMENT No. 3.—COMPARATIVE STATEMENT OF EXPENDITURE AND REVENUE (MILITIA AND AIR SERVICES)
FOR THE TEN YEARS 1920-21 TO 1929-30

Expenditure	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
MILITIA SERVICES—										
<i>Main Appropriation—</i>										
Administration.....	368,883	355,275	316,731	319,518	299,415	295,540	298,551	306,294	304,367	296,192
Cadet Services.....	230,288	409,348	336,933	400,000	367,829	410,195	395,936	498,301	499,979	499,973
Contingencies.....	49,073	41,151	39,743	27,025	23,844	29,179	20,351	23,832	39,004	39,195
Engineer Services and Works.....	539,546	582,112	525,666	529,815	499,545	565,554	565,540	802,989	828,585	841,921
General Stores.....	436,450	525,959	484,134	482,622	335,448	378,033	389,151	607,722	887,328	950,941
Manufacturing establishments.....	689,322	696,276	437,107	445,083	415,820	419,657	419,570	469,632	586,936	586,062
Non-Permanent Active Militia.....	1,155,727	1,902,630	1,678,544	1,690,507	1,551,257	1,676,336	1,709,939	2,078,256	2,314,821	2,313,839
Permanent Forces.....	5,705,736	5,882,938	5,425,105	5,125,605	4,789,339	4,773,601	4,798,121	4,797,578	4,951,524	4,948,344
Royal Military College.....	551,031	377,430	341,284	374,141	364,944	366,705	339,336	363,413	372,101	374,724
Topographic Survey.....	45,125	39,956	42,330	43,399	34,614	34,223	36,969	39,994	44,988	44,999
Transport and Freight.....	315,443	199,815	168,247	180,705	157,688	162,318	160,789	163,964	214,694	214,858
Total Main Appropriations.....	9,886,624	11,013,910	9,795,824	9,668,071	8,819,743	9,113,341	9,134,253	10,151,975	11,044,327	11,111,148
<i>Miscellaneous Appropriations, etc.—</i>										
War, Demobilization and Adjustment of War Claims (Militia).....			4,273,445	678,320	479,159	286,441	148,894	132,630	112,492	88,607
Canadian Battlefields Memorials.....	16,229,764	7,916,360	180,736	108,773	95,313	180,422	150,656	183,067	160,873	168,967
Imperial War Graves Commission.....	164,756	137,421	378,442	371,785	446,896	472,519	799,767	573,419	573,698	573,794
Wireless Stations N.W.T. (Radio Services).....	378,966	522,115				146,830	137,779	142,736	138,715	140,161
Civil Pensions.....	1,115	1,115	1,115	1,115	1,115	See General Services				
Various Special Votes, etc.....	6,130	1,914	467	6,155	500	17,919	24,340	14,731	2,905	52,022
Aid to Civil Power.....		593	61,430	86,615	8,623	126,368	6,968	1,929	7	
Toronto Barracks—Special Account.....	144		78		177	494				1,250
Total Miscellaneous Appropriations, etc.....	16,780,875	8,579,518	4,895,713	1,252,763	1,131,783	1,230,993	1,268,398	1,048,512	988,691	1,024,801
<i>Civil Government—</i>										
Salaries.....	212,732	551,991	540,757	See General Services.						
Contingencies.....	19,837	25,968	15,991							
Total Civil Government (Militia).....	232,569	577,959	556,748							
Grand Total Militia Services.....	26,900,098	20,171,387	15,248,285	10,909,834	9,951,526	10,344,334	10,402,651	11,000,487	12,033,018	12,135,949
AIR SERVICES—										
<i>Main Appropriations—</i>										
Royal Canadian Air Force—operation, maintenance, training, repairs, civil aviation, etc.....										
Purchase of aircraft and technical equipment, ground services.....										
Royal Canadian Air Force.....	1,583,910	1,659,842	999,983	999,350	1,102,205	1,139,848	2,197,645	Vote divided —	see under.	
			249,788	275,122	740,767			1,645,604	1,697,653	1,947,347

[illegible]

STATEMENT No. 4.—ADJUSTMENT OF WAR CLAIMS (MILITIA)
STATEMENT OF EXPENDITURE FOR THE YEAR
ENDING MARCH 31, 1930

Particulars	Amount
	\$ cts.
Separation allowance.....	3,691 00
War Service Gratuity.....	12,981 39
Pay and Allowances.....	3,168 60
Historical Section.....	22,345 46
Ordnance Services.....	12,330 88
Transport and Travelling.....	683 40
Civilian Employees.....	2,190 00
Estates of Deceased Soldiers.....	800 72
Medals and Memorial Crosses.....	459 69
Legal Expenses.....	196 00
Postage.....	1,103 87
Printing and Stationery.....	3,001 03
Canadian War Graves.....	25,032 44
Miscellaneous.....	622 23
Total for year.....	88,606 71
Expenditure prior to April 1, 1929 for War Services.....	1,559,490,213 05
	1,559,578,819 76

APPENDIX B

PAY SERVICES

Following are statements for the fiscal year, showing:—

STATEMENT No. 1.—EXPENDITURE BY STATIONS ON ACCOUNT OF PAY AND ALLOWANCES OF THE PERMANENT ACTIVE MILITIA FOR THE FISCAL YEAR 1929-30

Station	Strength all ranks 31-3-29	Strength all ranks 31-3-30	Pay and Allowances Officers and Warrant Officers	Pay and Allowances N.C.Os. and Men	Total Pay and Allowances
			\$ cts.	\$ cts.	\$ cts.
London, Ont.....	191	207	98,626 81	147,365 98	245,992 79
Toronto, Ont.....	362	397	226,979 99	258,496 39	485,476 38
Kingston, Ont.....	370	400	200,131 64	253,205 42	453,337 06
Montreal, P.Q.....	212	236	138,827 90	146,137 04	284,964 94
Quebec, P.Q.....	235	240	97,804 70	171,207 99	269,012 69
Halifax, N.S.....	469	478	269,164 89	288,745 51	557,910 40
Saint John, N.B.....	49	49	44,399 80	37,171 98	81,571 78
Winnipeg, Man.....	408	451	213,851 42	250,685 44	464,536 86
Victoria, B.C.....	215	243	148,219 28	157,462 59	305,681 87
Regina, Sask.....	49	50	43,218 04	37,927 40	81,145 44
Calgary, Alta.....	139	157	102,663 50	107,356 64	210,020 14
Ottawa, Ont.....	288	275	314,086 43	219,502 64	533,589 07
Total.....	2,987	*3,183	1,897,974 40	2,075,265 02	3,973,239 42

*Does not include 98 Officers and 229 Other Ranks paid from Administration, Royal Military College, Geographic Section, Cadet Services, R.C.A.F., N.W.T., and other Votes.

STATEMENT No. 2.—EXPENDITURE BY STATIONS ON ACCOUNT OF PAY AND ALLOWANCES OF THE ROYAL CANADIAN AIR FORCE FOR THE FISCAL YEAR 1929-30

Station	Strength all ranks 31-3-29	Strength all ranks 31-3-30	Pay and Allowances Officers and Warrant Officers	Pay and Allowances N.C.Os. and Men	Total Pay and Allowances
			\$ cts.	\$ cts.	\$ cts.
Toronto, Ont.....	261	358	152,839 21	230,234 36	383,073 57
Montreal, P.Q.....	2	.....	2,279 58	535 50	2,815 08
Winnipeg, Man.....	113	141	79,475 62	147,764 97	227,240 59
Victoria, B.C.....	22	37	12,826 88	41,337 12	54,164 00
Calgary, Alta.....	26	27	16,049 84	28,180 68	44,230 52
Ottawa, Ont.....	297	281	254,302 76	263,897 16	518,199 92
Total.....	721	*844	517,773 89	711,949 79	1,229,723 68
Personnel of R.C.C.S., R.C.O.C., R.C.A.M.C. and Instructional Cadre paid from R.C.A.F. Funds.....	.....	129	28,926 09	65,753 17	94,679 26
.....	546,699 98	777,702 96	1,324,402 94

*Includes 85 Officers, Non-Permanent R.C.A.F., permanently employed.



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DOMINION OF CANADA

REPORT

OF

THE DEPARTMENT OF NATIONAL DEFENCE
(NAVAL SERVICE)

FOR THE

FISCAL YEAR ENDED MARCH 31

1930



200—8-30 (4104)
N.S. 65-1-20

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

THE DEPARTMENT OF NATURAL RESOURCES

MINISTER OF THE CROWN

THE DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE MINISTER

OTTAWA

1911

1911



OTTAWA, July 1, 1930.

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor-General and Commander in
Chief of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit, herewith, for the information of Your Excellency and the Parliament of Canada, the Eighth Annual Report of the Department of National Defence (Naval Service), for the fiscal year ended March 31, 1930.

I have the honour to be,

Your Excellency's most obedient servant,

J. L. RALSTON,
Minister of National Defence.

OTTAWA, July 1, 1930.

The Honourable
The Minister of National Defence,
Ottawa.

SIR,—I have the honour to enclose, herewith, Annual Report of the Department of National Defence (Naval Service) for the fiscal year ended March 31, 1930.

I have the honour to be, sir,

Your obedient servant,

G. J. DESBARATS,
Deputy Minister.

REPORT
OF THE
DEPARTMENT OF NATIONAL DEFENCE
(NAVAL SERVICE)

FOR THE FISCAL YEAR ENDED MARCH 31, 1930

OTTAWA, June 30, 1930.

G. J. DESBARATS, C.M.G., M.E.I.C.,
Deputy Minister, Department of National Defence,
Ottawa.

SIR,—I have the honour to submit the following report on the Naval Service of Canada for the fiscal year ended March 31, 1930, under the following headings:—

1. Personnel
2. H.M.C. Ships
3. R.C.N. Barracks
4. H.M.C. Dockyards
5. Naval Intelligence
6. Naval Stores
7. Financial Statement
8. General

1. PERSONNEL

ROYAL CANADIAN NAVY

At the beginning of the fiscal year under review the authorized complement was 710 officers and ratings.

During the year it became necessary to increase this complement to provide partly trained crews for the new destroyers *Saguenay*, and *Skeena*, under construction, and larger instructional staffs for training the increased number of ratings of the Royal Canadian Navy and personnel of the Reserve forces.

The authorized complement was increased to 104 officers and 792 ratings. In order to provide adequate training for the newly entered ratings, they have been entered in classes of limited numbers and the total complement will not be recruited until the new ships are commissioned, in the spring of 1931.

At the close of the fiscal year the personnel serving comprised 83 officers and 709 ratings.

Officers.—Of the eighty-three officers serving, only nine are on loan from the Royal Navy. Of this number, four are Commissioned Officers and five are Warrant Officers. One Commander, Royal Navy, is serving at Headquarters in charge of the Canadian Division of the Admiralty World-wide Intelligence System; one Paymaster Commander, R.N., occupies the position of Naval Secretary at Headquarters; one Paymaster Lieutenant Commander, R.N., is Accountant Officer at R.C.N. Barracks, Esquimalt; and one Lieutenant (E.), R.N., has been appointed to the Engineering Department at Halifax temporarily, to meet a shortage in Engineer Officers caused by the necessity for appointing an Engineer Officer to new construction in England, and by the

death of Engineer Commander George P. Clarke, R.C.N. The remaining five R.N. Officers are all Commissioned Officers from Warrant rank or Warrant Officers employed on gunnery and torpedo duties. There are no Canadian ratings of sufficient seniority for advancement to Warrant rank, at present, to fill these positions.

So far as possible, therefore, the Royal Canadian Navy is officered by Canadians, most of whom are graduates of the Royal Naval College of Canada. The following table gives the number of Canadian officers in each rank:—

Commodore.....	1
Commander.....	6
Lieutenant Commander.....	27
Lieutenant.....	9
Sub-Lieutenant.....	2
Midshipman.....	2
Cadet.....	3
Engineer-Commander.....	4
Lieutenant (E).....	6
Paymaster Lieutenant-Commander.....	1
Paymaster Lieutenant.....	2
Shipwright Lieutenant.....	1
Warrant Shipwright.....	1
Commissioned Gunner.....	2
Gunner.....	3
Warrant Writer.....	2
Warrant Victualling Officer.....	2
Total.....	74

It may be noted that there is an undue proportion of Lieutenant-Commanders. This is a direct result of demobilization between 1918 and 1920, and of the reorganization period which followed. The extensive war activities were discontinued and the Royal Canadian Navy was reduced to a small peace complement shortly after the close of the war. Only such officers of the Royal Canadian Navy as were required to carry on the work of the service were retained, and the major number of these held, at that time, the rank of Lieutenant or Sub-Lieutenant. As there was no expansion which required additional officers over a period of six years from 1919 to 1925, no junior officers were entered. Those who were retained advanced through service, and are now in Lieutenant-Commander's rank.

In 1925 the entry of Cadets was again begun, and each year since then a small number have been entered. These junior officers are gradually filling the lower ranks, and this, combined with the pension scheme inaugurated in 1928, will bring the complement of officers into proper balance in the course of a few years.

During the past year three cadets were successful at the Cadetship examinations, and proceeded to England for training in H.M.S. *Erebus* with special entry cadets of the Royal Navy. One cadet who entered the previous year was unsuitable for service as a Naval Officer and was withdrawn.

One Lieutenant-Commander resigned his commission.

The system of alternating appointments of officers, i.e., two years afloat in H.M.C. ships, two years in a shore appointment in Canada, and two years' service afloat or attending qualifying courses in the Royal Navy, has continued in operation during the year. The distribution of officers at the close of the year follows:—

Headquarters, Ottawa.....	9
Serving Overseas.....	27
H.M.C.S. <i>Stadacona</i> , Halifax.....	15
H.M.C.S. <i>Champlain</i> , Halifax.....	5
H.M.C.S. <i>Ypres</i> , Halifax.....	1
H.M.C.S. <i>Festubert</i> , Halifax.....	1
On loan to R.C. Air Force.....	1
H.M.C.S. <i>Naden</i> , Esquimalt.....	16
H.M.C.S. <i>Vancouver</i>	5
H.M.C.S. <i>Armentieres</i>	1
New Construction, England.....	2
Total.....	83

Of the twenty-seven officers serving in the Royal Navy, the following attended the courses shown during the year:—

Imperial Defence Course—Commander G. C. Jones.
 Senior Officers' Technical Course—Commander P. W. Nelles.
 Naval Staff Course—Commander R. I. Agnew.
 Naval Staff Course—Lieutenant-Commander W. J. R. Beech.
 Long Torpedo Course—Lieutenant H. N. Lay.
 Sub-Lieutenant's Course—Midshipman E. W. Finch-Noyes.
 Sub-Lieutenant's Course—Midshipman J. C. Hibbard.
 Lieutenant's Course—Lieutenant K. F. Adams.

Cadets training in H.M.S. *Erebus*—Cadet F. E. Grubb; Cadet H. S. Rayner; Cadet C. M. Leavitt; Cadet B. Jewkes; Cadet P. E. Haddon; Cadet R. A. Webber.

Long Signal Course—Lieutenant H. Kingsley.
 Gunner's Course—Commissioned Gunner (Act) A. Turnbull.
 Gunner's Course—Gunner (Act) A. H. Baker.

The other officers on loan to the Royal Navy filled appointments in H.M. ships. Service in H.M. ships is of distinct advantage to officers of the Royal Canadian Navy, who keep up-to-date with the latest Naval developments, gain experience in the naval routine of large ships, and in squadron tactics, which they cannot do while serving at home, owing to the small number (and different types) of ships in commission.

Officers serving afloat in H.M.C. ships are employed on regular ships' duties, and those serving on shore at Headquarters and in R.C.N. Barracks, Halifax and Esquimalt, are employed on administrative and instructional duty.

Engineer Commander George P. Clarke died on February 17, 1930. Engineer Commander Clarke, at the time of his death, occupied the important and responsible position of Canadian Overseer for the construction of new destroyers. He was an officer of exceptional ability, and his death is a serious loss to the service.

The officers of the Royal Canadian Navy have maintained a high degree of efficiency throughout the year.

Ratings.—The 709 ratings serving in the Royal Canadian Navy are composed of 637 entered from shore in Canada and 72 on loan from the Royal Navy.

The Royal Navy ratings are, without exception, senior ratings with specialist qualifications. They are employed, for the most part, on instructional duty in their specialist branch, i.e., Torpedo, Gunnery and Wireless Telegraphy. In the last named branch particularly, development has been very rapid, and it was not possible to train Canadian ratings in sufficient numbers and within the time required to fill vacancies. This condition will disappear as soon as the ratings now under training complete their courses.

To meet personnel requirements for new construction, the net number of ratings has been increased by 50 during the past year. The newly authorized complement will be completed to strength in the spring of 1931, when the destroyers *Saguenay* and *Skeena* will be placed in commission. The actual number of new entries during the year is 150.

Entries have all been made from shore in Canada from amongst youths between 16½ and 26 years of age. A high standard of education and physical fitness has, in each case, been insisted upon. As the number of applicants has far exceeded the number required for entry, the Department has had a broad range of choice in entering new ratings, and has been able to pick the candidates from every province of the Dominion.

The result of careful recruiting is shown in the keenness of Canadian ratings in their training and service, and the signal success which they have attained while attending courses abroad. Their general bearing, conduct and efficiency have been most favourably commented upon by all authorities with whom they have come in contact.

The department has made full use of arrangements with the Admiralty for training ratings for specialist branches in R.N. establishments. The system is economical as the cost of five pounds per week for attendance at R.N. training establishments is small compared to the expense of equipping and maintaining training schools in Canada.

During the year ratings attended courses as follows:—

Torpedo Gunner's Mate.....	2
Leading Torpedoman.....	5
Seaman Torpedoman.....	5
Gunlayer, 2nd class.....	2
Seaman Gunner.....	8
Gunlayer, 2nd class requalifying.....	4
Seaman Gunner requalifying.....	3
Seaman Torpedoman requalifying.....	3
Torpedo Coxswain.....	2
Diver, 2nd class.....	2
Petty Officer's course.....	2
Seamanship course for Warrant Officers.....	1
Mechanical Training course.....	5
Yeoman of Signals course.....	1
Leading Telegraphist course.....	3
Telegraphist course.....	1
Signalman requalifying course.....	1

Ratings attending courses in the Royal Navy also served afloat in H.M. ships to gain practical experience.

The distribution of ratings in ships and establishments is as follows:—

Naval Headquarters.....	2
Serving Overseas.....	65
H.M.C.S. <i>Stadacona</i> , Halifax.....	200
H.M.C.S. <i>Champlain</i> , Halifax.....	94
H.M.C.S. <i>Ypres</i> , Halifax.....	21
H.M.C.S. <i>Festubert</i> , Halifax.....	19
On loan to Air Service.....	5
H.M.C.S. <i>Naden</i> , Esquimalt.....	197
H.M.C.S. <i>Vancouver</i> , Esquimalt.....	80
H.M.C.S. <i>Armentieres</i> , Esquimalt.....	22
New Construction.....	4
Total.....	709

One hundred and twenty-two ratings were discharged for reasons shown below:—

Continuous services engagement expired.....	33
Temporary services engagement expired.....	2
Deserted.....	23
Services no longer required.....	26
Dead.....	1
Invalided.....	5
Discharged by purchase.....	7
Unsuitable medically or educationally on final examination for entry.....	25

Of the thirty-three ratings whose continuous service engagement expired, twenty-two re-engaged.

The Militia Pension Act is now applicable to the Royal Canadian Navy. As its provisions became better known, the number of ratings re-engaging for further service increases. In the course of time these re-engaged ratings will advance, and will be able to carry on the specialist duties now performed by R.N. ratings on loan.

ROYAL CANADIAN NAVAL RESERVE

The authorized strength of the Royal Canadian Naval Reserve is 70 officers and 430 ratings. The force has not, however, been recruited to full complement owing to the limited appropriations available.

A nucleus organization has, however, been established and is functioning smoothly. This organization admits of ready expansion to full complement should the necessity arise.

Registrars are appointed at Halifax, Charlottetown, Quebec, Montreal, and Vancouver. These registrars arrange for the entry and training of officers and ratings attached to their port divisions, and are in local charge of all administrative matters pertaining to the Reserve.

The distribution of personnel is as follows:—

Port Division	Officers	Ratings
Halifax.....	15	37
Charlottetown.....	1	23
Quebec.....	7	36
Montreal.....	2	23
Vancouver.....	9	11
Total.....	34	130

Officers except Skippers are granted commissions during pleasure. Skippers and ratings enrol for five-year periods.

Officers of the Royal Canadian Naval Reserve are required to perform naval training as follows:—

Chief Skippers and Skippers.—Twenty-eight days biennially beginning with the first year of service.

Acting Midshipmen.—Six months' continuous service during first year and thereafter twenty-eight days biennially.

Acting Sub-Lieutenant and Acting Lieutenant (direct entry).—Twenty-eight days each year for the first three years and thereafter twenty-eight days biennially.

Lieutenant (direct entry).—Twenty-eight days during the first year and thereafter twenty-eight days biennially.

Executive officers may also be permitted to carry out voluntary service for periods up to an aggregate of three years, the Engineer officers up to an aggregate of two years.

Ratings carry out forty-two days' training during the first year of service, and thereafter fourteen days annually. They are also permitted to carry out six months' voluntary service during any one period of service.

The following table gives the number of officers and ratings attending naval training and voluntary service:—

Port Division	Officers		Ratings	
	Naval Training	Voluntary Service	Naval Training	Voluntary Service
Charlottetown.....			20	15
Halifax.....	6	2	27	18
Quebec.....	5		30	21
Montreal.....			17	18
Vancouver.....	3	1	9	3
Total.....	14	3	103	75

Twenty ratings were entered and twenty-four discharged.

ROYAL CANADIAN NAVAL VOLUNTEER RESERVE

The authorized complement is 70 officers and 930 ratings.

The following table gives the distribution of personnel, the localities where Company Headquarters are established, and the total numbers serving:—

Company Headquarters	Officers	Ratings
Charlottetown.....	2	50
Halifax.....	4	34
Saint John.....	3	44
Quebec.....	4	33
Montreal.....	5	72
Ottawa.....	4	40
Toronto.....	8	107
Hamilton.....	4	52
Winnipeg.....	8	77
Regina.....	4	56
Saskatoon.....	4	50
Edmonton.....	2	44
Calgary.....	4	48
Vancouver.....	3	43
Prince Rupert.....	3	26
Total.....	62	776

Two hundred and fifty-two ratings were discharged during the year and 275 ratings were entered. One hundred and eleven ratings re-enrolled for a further term of service. The following table gives distribution of entries, discharges, and re-enrolments:—

Company Headquarters	Entries	Discharges	Re-enrolments
Halifax.....	20	5	2
Charlottetown.....	7	12	3
Saint John.....	14	12	10
Quebec.....	20	13	4
Montreal.....	43	31	11
Ottawa.....	15	15	3
Toronto.....	48	42	15
Hamilton.....	10	7	12
Winnipeg.....	22	31	17
Saskatoon.....	19	19	6
Regina.....	18	15	6
Calgary.....	12	13	12
Edmonton.....	13	17	8
Vancouver.....	4	2	1
Prince Rupert.....	10	18	1
Total.....	275	252	111

The above figures indicate the increased popularity of the force. New entries exceed discharges and a noticeable increase has occurred in the number of ratings re-enlisting for a second or third term. In an organization requiring residence in a particular locality, it is difficult to prevent a large number of discharges, as ratings change their place of residence, and this cause alone accounts for discharge in 66 of the 252 cases shown. Seventy-six ratings were discharged engagement expired.

Officers of the Royal Canadian Naval Volunteer Reserve are required to perform 14 days' training annually and may be permitted to carry out a total of three months' voluntary service during each three-year period of service.

Seaman and Engine Room ratings carry out 14 days' training annually and Accountant Branch ratings perform 21 days' training during first year of service, and thereafter 14 days biennially. All ratings may be permitted to perform four months' voluntary service during each period of enrolment.

Training is performed in R.C.N. Barracks, Halifax and Esquimalt and in H.M.C. ships. Although it is not possible during the short training periods to train ratings thoroughly, they do, however, receive a good fundamental training in the principles of Seamanship, Gunnery, Torpedo, Signals, Wireless Telegraphy and Engine Room duties, which in conjunction with training at Com-

pany Headquarters, fits them to render valuable service in time of emergency or war.

SCHEDULE OF R.C.N.V.R. TRAINING

	Training		Voluntary Service	
	Halifax	Esquimalt	Halifax	Esquimalt
Officers.....	15	16	6	3
Ratings.....	302	221	112	94

Through the courtesy of the Commander in Chief, America and West Indies Station, the department sent 84 ratings for service afloat in H.M. ships cruising in Canadian waters for periods of one month. This training, which was in addition to the service shown in the foregoing schedule, afforded excellent experience under actual seagoing conditions, and facilitated training arrangements at Halifax and Esquimalt, where accommodation and training equipment is limited.

The activities at Company Headquarters are becoming more standardized and, as ratings gain experience by naval training, instruction in drill is of a higher standard. Attendance at drill was good throughout the year.

The following table shows the average number of ratings who attended drills during the year and the average number of drills performed per rating, for each Company Headquarters:—

Company Headquarters	Average number of ratings who attended drill	Average drills per rating
Halifax.....	21	45
Charlottetown.....	16	58
Saint John.....	31	45
Quebec.....	31	20
Montreal.....	59	37
Ottawa.....	28	31
Toronto.....	67	63
Hamilton.....	37	49
Winnipeg.....	69	29
Regina.....	38	44
Saskatoon.....	39	26
Edmonton.....	34	30
Calgary.....	35	33
Vancouver.....	19	31
Prince Rupert.....	11	31

Social activities organized by Company Headquarters and paid from private sources continues to add to the popularity of the force.

Organized athletics, which form an important phase of training, were well supported, and ratings entered enthusiastically into the various games.

Rifle practice has also gained in attendance by ratings. Miniature ranges are installed in Company Headquarters and the competition for trophies and prizes has developed keenness in attendance.

The force, as a whole has been efficient throughout the year, and has developed along lines to produce the maximum results from the limited funds at its disposal.

ROYAL FLEET RESERVE

By arrangements with the Admiralty the Canadian Naval Service maintains records and trains Royal Fleet Reservists, resident in Canada, up to the number of 150.

There are now in Canada 131 Royal Fleet Reserve ratings.

Fifty-six Class B.R.F.R. ratings completed annual drill during the year and 12 Class A ratings completed biennial drill.

The cost of training and transportation in connection with the Royal Fleet Reserve is recovered from the British Admiralty.

2. H.M.C. SHIPS

The following ships were in commission during the year:—

Based at Halifax—H.M.C.S. *Champlain*, Destroyer.

Based at Halifax—H.M.C.S. *Festubert*, Minesweeper.

Based at Halifax—H.M.C.S. *Ypres*, Minesweeper.

Based at Esquimalt—H.M.C.S. *Vancouver*, Destroyer.

Based at Esquimalt—H.M.C.S. *Armentieres*, Minesweeper.

Based at Esquimalt—H.M.C.S. *Thiepval*, Minesweeper.

All ships in commission were fully employed on training duty and completed training cruises.

Training in gunnery and torpedo was carried out in the destroyers which carry the armament required for the instruction of classes under seagoing conditions. These ships trained the personnel in all branches of Naval work.

Training in the minesweepers was more limited, and the cruises completed were of a few days' duration each. The training comprised seamanship, mine-sweeping, minelaying, elementary gunnery training, navigation, signals and W/T. The minesweepers were utilized for the major part of the year on reserve training duty.

During summer training cruises the destroyers visited the following ports:—

H.M.C.S. *Champlain*.—Beddeck, Sydney, Quebec, Montreal, Three Rivers, Riviere-du-Loup, Metis, Seven Islands, Charlottetown, Bar Harbour (U.S.A), Saint John, Liverpool, Lunenburg.

H.M.C.S. *Vancouver*.—Drew Harbour, Safety Cove, Namu Harbour, Skidgate, Lowe Inlet, Goose Island, Topaze Harbour, Vancouver, Prince Rupert.

During these cruises the destroyers were part of the time in company with ships of the America and West Indies squadron cruising in Canadian waters. While these ships were cruising together, joint gunnery, torpedo and tactical exercises were completed.

In January, 1930, both destroyers proceeded to Bermuda and joined the America and West Indies squadron. Joint cruises covering a period of three months were carried out, during which the Canadian destroyers took their place as units of the squadron. The training completed was of a benefit to the Canadian personnel.

Loss of H.M.C.S. Thiepval.—While cruising on life saving patrol in Barkley sound, on the west coast of Vancouver Island, H.M.C.S. *Thiepval*, on February 27, 1930, struck an uncharted rock and sank. A thorough enquiry showed that no responsibility for the loss of the ship was attributable to the Commanding Officer. In view of the age and general condition of the ship, it has not yet been decided if salvage is justifiable.

New Construction.—The new destroyers under construction have been named H.M.C.S. *Saguenay* and *Skeena*. Progress on construction has been excellent and the ships will be launched in the summer of 1930 and commissioned in the spring of 1931. The ships, when completed, will be destroyers of the latest type, specially adapted for service in Canadian waters and with suitable accommodation for training purposes.

3. R.C.N. BARRACKS

R.C.N. Barracks are established at the naval bases, Halifax and Esquimalt.

These Barracks provide accommodation for officers and ratings serving at the base, training facilities and school for ratings, and suitable training equipment for preliminary training in specialist subjects such as gunnery, torpedo, signals, wireless telegraphy and engine room.

An instructional staff of highly trained specialist officers, ratings and qualified schoolmasters are maintained on instructional duty and the courses established are thorough.

The general results at educational and professional examinations have been satisfactory, and ratings who have proceeded to England for advanced courses, have shown, in their high standing, the suitability of preliminary training through which they have passed.

The personnel at R.C.N. Barracks are encouraged to enter athletic activities as a part of the physical training organization and teams are entered in local athletic leagues. These comprise baseball, rugby and association football, softball, hockey and rifle shooting.

In addition to permanent force ratings, the Naval Barracks provide accommodation and training for officers and ratings of both the Royal Canadian Naval Reserve and the Royal Canadian Naval Volunteer Reserve.

Syllabuses are followed in the various courses for reserve personnel, which are cast to give a good basic training in the short period during which these individuals are in Barracks.

4. H.M.C. DOCKYARDS

The Dockyards at Halifax and Esquimalt were maintained for use of Imperial ships in Canadian waters for many years prior to 1910.

When the Royal Canadian Navy was established in that year both dockyards were taken over by the Canadian Government as an essential part of the naval organization.

These establishments have been maintained in an up-to-date condition and are equipped with modern machinery and workshops.

The dockyards not only function as repair and supply bases for the Canadian Naval Service, but carry out similar functions for other Dominion Government departments, ships of the Royal Navy and of the United States ice patrol.

Each dockyard is under the jurisdiction of a manager who is responsible for its internal organization and administration. In technical matters the manager is guided by the expert advice of technical naval officers with whom he co-operates in the closest manner.

The staffs are composed entirely of civilian employees and artisans. The civil staffs are small but are so organized that they may be readily expanded to meet requirements in an emergency.

The artisan employees are engaged for specific jobs on hand and are laid off when work is slack. For the past year both yards have been busy and the work entailed the continuous employment of a fairly large number of artisans.

H.M.C. Dockyard, Halifax.—All refits and repairs for H.M.C. Ships stationed at Halifax have been carried out in the dockyard. The dockyard has also carried out all repair work to ships of the Department of National Revenue, and has also completed repairs to ships of the Departments of Marine, Fisheries, Railways and Canals and to vessels of the United States ice patrol. The facilities of the dockyard have also been placed at the disposal of H.M. ships cruising in Eastern Canada waters. All services rendered to other Canadian Government Departments and to other Governments have been carried out on a repayment basis.

Ships of other departments have been provided with berthing accommodation at the wharves during the period of their winter lay up, and have also been supplied with ships' stores on a repayment basis.

H.M.C. Dockyard, Esquimalt.—All refits and repairs of H.M.C. Ships on the west coast have been carried out at the dockyard as well as repairs to ships of the Department of Marine, Fisheries and H.M. Ships cruising on the west coast of Canada. Docking and storing services have also been rendered as at Halifax.

5. NAVAL INTELLIGENCE

The Canadian division of the Admiralty intelligence organization, which is under the administration of Canadian naval authorities, has functioned satisfactorily throughout the year. The amount of information required with regard to shipping, port facilities and other matters has continued to increase, and the department has met all requirements in that regard.

Close co-operation with the intelligence organization of the other defence forces, has eliminated much duplication of work, and the exchange of statistical data has been of great assistance to all the services concerned.

6. NAVAL STORES

In keeping with the organization of the branch, and for convenience, the activities of the branch are dealt with under the following headings: (a) Naval and Victualling stores division; (b) Armament Supply division; and (c), Purchases.

NAVAL AND VICTUALLING STORES DIVISION

The main functions of the Naval and Victualling Stores Division have to do with the provision, issue and accounting of all naval stores, clothing and provisions for the R.C.N., R.C.N.R., and R.C.N.V.R. Stocks are maintained under experienced naval store officers at H.M.C. Dockyards, Halifax and Esquimalt. In addition to the stocks for the ordinary requirements of the authorized personnel and ships of the R.C.N. and Reserve forces, certain war reserves are maintained and provision is made to assist other Government departments as requested from time to time.

During the year under review, the activities of this division increased as regards the provision of adequate stocks, due to the exhaustion of the war stocks, as evidenced by the value of the stores purchased.

The stocks of the naval and victualling stores which include uniforms, mess traps and provisions at the close of the fiscal year 1929-30 amounted to \$641,016 at Halifax, and \$336,604 at Esquimalt.

The value of naval and victualling stores, handled other than those obtained on direct contracts, was as follows:—

HALIFAX DOCKYARD

(Not including naval armament stores)

Value of stores received.....	\$ 178,331 84
Value of stores returned from ships, etc.....	13,013 66
Value of stores issued.....	198,888 52

ESQUIMALT DOCKYARD

(Not including naval armament stores)

Value of stores received.....	\$ 117,321 77
Value of stores returned from ships, etc.....	6,383 42
Value of stores issued.....	127,271 09

Issues of naval stores to H.M.C. ships and establishments are only made in accordance with authorized allowances or for approved repairs, refits, new construction, etc. Naval uniform clothing is only issued in accordance with the uniform regulations and all foodstuffs are similarly subject to a standard scale of rations.

Supplementing the stores supplied through the dockyards, standing contracts were arranged through the Director of Contracts for the supply of fresh provisions and for certain other items which are drawn direct by the ship or establishment requiring them. Supply was also arranged of stores, fuel, etc., required by visiting Imperial warships as well as by ships of other Government departments, and purchases of large shipments of lumber and gases were made on behalf of H.M. Dockyard, Bermuda.

The value of the supplies taken up direct by H.M.C. ships and establishments on the standing contracts for fresh provisions, fuel, laundry, etc., in 1929-30 were:—

East coast.....	\$ 43,709 00
West coast.....	51,955 00

The coal used during the year both for heating and steaming was as follows:—

Halifax: 633 tons Welsh anthracite, 1,700 tons bituminous (Canadian).

Esquimalt: 1,974 tons bituminous (Canadian), (including contracts on coast of Vancouver island).

If the proposed Halifax-Dartmouth bridge is built, certain wooden store-houses at Halifax Dockyard may have to be removed and therefore renovation of these buildings has been deferred. The construction of more modern store-houses will be necessary in the near future.

Assistance to the Department of National Revenue in the storing of their vessels has been continued and at Halifax a building has been set apart for the sole use of the Customs Service Preventive Cruisers for landing their stores, etc.

The stocks at both yards have been again reviewed, and such articles as were found to be unserviceable or so obsolete that they could not be utilized have been disposed of through the Government Salvage Officer; the number of unserviceable articles returned by the ships have been fewer this year as no ships were being disposed of as in the past year.

The biennial program of stocktaking whereby the stock generally at both dockyards is taken within a two-year period and stock which is frequently replenished is taken twice, was pursued with eminently satisfactory results as no discrepancies of any consequence were discovered.

The store accounts at the dockyards, as examined under a system of concurrent audit, were found to have been kept very accurately, any discrepancies discovered being of a minor nature and readily adjusted. The store accounts from ships and establishments were also examined and found to be satisfactory; the stores supplied being properly accounted for with no serious deficiencies.

The victualling of the enlisted personnel under the system of general messing was carried out satisfactorily. During the year 56,220 meals were served at an average cost of 16 cents a meal, and while the cost was kept low, examination of the victualling accounts proved that within the governing scales an adequate and varied dietary suitable for naval requirements was provided.

A motor truck was purchased during the year for use at H.M.C. Dockyard, Halifax, and its services have proved to be very economical; the expenditure for cartage has been reduced and good use has been made of this truck for services other than the handling of stores alone.

NAVAL ARMAMENT SUPPLY

The functions of this division have to do with the provision, receipt, issue, care and maintenance, repair, testing, examination, accounting and audit of all naval armament stores, comprising ordnance, ordnance stores, ammunition, torpedoes, torpedo stores, paravanes, mines and depth charges, in connection with the Canadian Naval Service and Imperial Service at Halifax and Esquimalt.

Armament Supply Depots are maintained at Halifax and Esquimalt and comprise storehouses where the necessary facilities for the care, issue and receipt of guns, gun mountings, and torpedoes are available; magazines for the proper stowage, care and maintenance of the respective classes of explosives; and workshops for carrying out the necessary repairs and alterations to ordnance and ordnance stores authorized by the list of changes in war material.

At Halifax, the naval portion of the joint service magazines, Bedford Basin, is practically complete and consists of twenty-four buildings. A small building for the breaking down of ammunition has been erected this year enabling this operation to be isolated from store buildings, thus producing a greater degree of safety.

By arrangement with the Admiralty, the duties of inspecting naval ordnance and of making tests and proofs of naval explosives on Imperial charge were taken over by the Naval Armament Supply Officer, who is the inspecting officer for ordnance and ammunition in the Canadian Naval Service. By this arrangement the examinations, tests and proofs of both Canadian and Imperial stocks of ammunition are now carried out as one operation, resulting in a saving of time and expense.

During the winter months of 1929-30 some difficulties were encountered in keeping communication open to the magazines owing to the freezing up of Bedford Basin. The steam boats available were unable to break up this ice at all times and the services of ss. *Stanley*, icebreaker, were requisitioned from the Department of Marine. This service was rendered free of charge. It is becoming increasingly apparent that a vessel of such dimensions as to be able to break through twelve inches of ice is necessary, in order that communication may be maintained by water with the magazines at all times, particularly as the road from Dartmouth to Bedford becomes practically impassable during the winter months.

At Esquimalt the magazines are located on Cole Island and are in a bad condition generally, in no way conforming to the regulations. Although the quantities of explosives at present stored there are small, the fact that the buildings are in such poor condition and only a few feet apart, constitutes a risk which should not be accepted any longer than is absolutely necessary.

The stocks of armament stores at Halifax and Esquimalt are maintained in an efficient manner and have been depleted of all obsolete and unserviceable stores. Stock provision for the requirements of the Canadian naval service is made under an agreement with the British Admiralty to maintain sufficient reserves of ammunition for issue to H.M.C. ships on repayment as required. Under this agreement the storekeeping of all Imperial stocks, whether for ultimate issue to Imperial or Canadian services, is undertaken by the department in return for the provision of the necessary reserves by the Admiralty.

The store accounts of both depots, and of ships and establishments, have been kept and rendered in a satisfactory manner, as shown by the audit thereof.

The following is the value of receipts and issues made during the year, exclusive of all transactions from Imperial stocks:—

Naval Armament Supply Depot, Halifax—

Receipts.....	\$39,240
Returns.....	16,941
Issues.....	50,880

The above issues are exclusive of the value of ammunition stored at Halifax for supplying requirements at Esquimalt, B.C., the issue of which during the year amounted to \$41,120.

Naval Armament Supply Depot, Esquimalt—

Receipts.....	\$49,684
Returns.....	27,800
Issues.....	43,845

The above are exclusive of issues of torpedoes to H.M.C. Ships and Establishments in lieu of others returned for overhaul and test. The value of these transactions during the year were: Issues, \$55,000; returns, \$44,809.

The various R.C.N.V.R. units were supplied with new rifles purchased the previous year, in addition to the necessary stores for training.

The stocks of armament stores, both Imperial and Canadian, were verified under a system of continuous stocktaking, the results of which were very satisfactory.

PURCHASES

As in past years, assistance was afforded the Contracts Branch whenever possible in connection with the purchase of stores required for the Naval Service. Decisions have been given on technical questions entering into such purchases.

At the dockyards local purchase was made of such stores as are required in an emergency or which are of such a nature as to be best obtained locally. In all instances competitive tenders were invited.

The value of local purchases made at the dockyards during the year amounted to \$72,064 at Halifax and \$48,078 at Esquimalt.

Local purchases were similarly effected by H.M.C. ships and establishments, comprising for the greater part fresh and miscellaneous provisions not issued by the dockyards, and on the basis of standing contracts arranged by the department from headquarters.

During the year the total value of naval, victualling and armament stores purchased on account of the Naval Service, by local purchase and otherwise, for delivery to the store depots and to the service direct, amounted to \$560,671.

7. FINANCIAL STATEMENT

The following financial statements show a total expenditure during the year of \$3,013,752.50. A revenue of \$21,709.73 was derived from rentals, refunds, discharges by purchase, sale of stores, etc.

STATEMENT OF APPROPRIATION ACCOUNTS FOR FISCAL YEAR, 1929-30

	Appropriation	Expenditure	Balance unexpended
	\$ cts.	\$ cts.	\$ cts.
Naval Service.....	3,600,000 00	3,013,396 47	586,603 53
Adjustment of War Claims.....	3,000 00	356 03	2,643 97
	3,603,000 00	3,013,752 50	589,247 50

IMPERIAL GOVERNMENT (Special Account)—

Disbursements.....	\$ 59,753 08
Carried from 1928-29.....	23,995 67
	\$ 83,748 75
Less—Reimbursements and Credits.....	\$ 77,337 46
Transferred to 1930-31.....	6,411 29
	\$ 83,748 75

NATIONAL DEFENCE (NAVAL SERVICE)

STATEMENT OF REVENUE FOR FISCAL YEAR ENDED
MARCH 31, 1930

CASUAL REVENUE—

Refunds, previous years expenditure.....	\$	1,090 94	
Rents—Dockyard residences.....	\$	351 00	
Naval Reserve Plots.....		571 55	
Miscellaneous.....		50 00	
			972 55
Sale of surplus and condemned stores.....			6,010 03
Sale of Government property.....			30 00
Rent of stores and equipment.....			131 00
Discharges by purchase.....			972 54
Miscellaneous.....			66 12
			\$ 9,273 18
Naval pensions.....			12,436 64
Premium, discount and exchange.....			0 11
			\$ 21,709 93

SUSPENSE ACCOUNTS SHOWING VALUE OF WORK DONE AND MATERIAL SUPPLIED
FOR ACCOUNT OF CANADIAN GOVERNMENT DEPARTMENTS, BRITISH
ADMIRALTY AND OTHERS

	Dr.	Cr.	Balances transferred to 1930-31
	\$ cts.	\$ cts.	\$ cts.
British Admiralty.....	83,748 75	77,337 46	6,411 29
Department of Indian Affairs.....	0 80	7 98	Cr. 7 18
Department of Marine and Fisheries.....	11,338 36	10,550 54	787 82
Department of National Revenue.....	93,895 75	92,459 84	1,435 91
Department of National Defence (Militia and Air Services).....	30,947 33	28,763 16	2,184 17
Department of Pensions and National Health.....	9,616 93	8,901 81	715 12
Department of Public Works.....	4,214 45	4,059 09	155 36
Department of Railways and Canals.....	51 02	51 02	
Royal Canadian Mounted Police.....	641 56	599 54	42 02
Government of Dominica.....	44 72	44 72	
Government of Newfoundland.....	159 00	72 00	87 00
Miscellaneous.....	110,339 34	112,724 90	Cr. 2,385 56
	344,998 01	335,572 06	9,425 95

STATEMENT OF EXPENDITURE UNDER THE NAVAL APPROPRIATION FOR THE FISCAL YEAR ENDED MARCH 31, 1930

REPORT OF THE DEPUTY MINISTER

Ship or Establishment	Pay and allowances	Stores and allowances	Medical services	a. Martial law b. Training and recruiting	Repairs, maintenance, shipbuilding	c. New buildings		Non-effective pay	Advances, suspense, etc.	Total	Grand total
						Miscellaneous effective services					
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
H.M.C.S. <i>Champlain</i>	101,227 49	54,790 48	2,267 38	a36 13	32,886 67	1,617 20		1,019 67		193,845 02	
" " fuel		11,328 81								11,328 81	
Minesweeper <i>Festubert</i>	23,291 62	9,704 04	293 00	a3 60	3,223 13	44 81		149 22		36,709 42	205,173 83
" " fuel		3,164 16								3,164 16	39,873 58
Minesweeper <i>Ypres</i>	23,030 00	8,263 05	426 75		4,983 41	56 19		301 39		37,060 79	
" " fuel		3,029 90								3,029 90	
H.M.C.S. <i>Vancouver</i>	91,208 21	52,123 67	2,524 32	a26 19	18,871 99	2,709 73		784 19		168,248 30	40,090 69
" " fuel		21,550 23								21,550 23	
Minesweeper <i>Armentieres</i>	26,392 06	10,834 28	397 88		7,940 62	379 59		533 22		46,477 65	189,798 53
" " fuel		4,111 07								4,111 07	
Minesweeper <i>Thiepval</i>	22,267 29	9,514 59	196 74	a41 80	9,070 70	3,271 16		338 32		44,700 60	50,588 72
" " fuel		2,219 62								2,219 62	
Headquarters	29,259 49	1,106 61	340 11					730 00			46,920 22
Canadian officers and men overseas	90,318 44	9,982 73	436 78								45,029 96
Barracks											151,321 10
Halifax, N.S.	171,514 85	100,323 48	8,726 40	a716 22	47,355 69	18,081 88		6,165 00			337,883 52
Esquimaux, B.C.	172,022 46	93,533 53	9,710 41	a156 12	12,008 06	18,885 25		4,163 29			335,382 17
Intelligence—											
Headquarters	9,188 64	121 48	43 35			4,620 90		949 00			14,923 37
Halifax, N.S.	6,250 44	182 04			69 75	281 71					6,783 36
Esquimaux, B.C.	5,955 50	148 83			81 00	521 87					6,707 20
R.C.N. Volunteer Reserve—											
Halifax	3,643 55	1,407 05	6 00		10 05	267 20		28 23		5,767 08	
Charlottetown	3,334 55	1,697 12		b65 50	94 22	1,2291				6,420 90	
St. John	3,703 10	1,550 68		b100 00	230 91	1,205 60				6,790 29	
Quebec	3,811 44	1,982 25	1 00	b6 40	448 71	1,759 56		812 64		8,822 00	

Repair Base— Operating expenses..... Percentages Cr.....	1,207 00			29,311 99 Cr. 31,263 58	9,655 11			40,174 10 Cr. 31,263 58	8,910 52 19,012 19
Fleet General— Arm. Supp. Depot— Stores..... Operating expenses..... Percentage Cr.....	340 44 Cr. 4,713 33 47,765 58 Cr. 4,563 04			12,867 99 22,148 47 109 44	5,803 76 3,922 36			Cr. 4,563 04 73,836 41	Cr. 4,713 33
Naval cemetery..... Esquimalt, B.C.— Dockyard..... Stores..... Supply Base— Operating expenses..... Percentages Cr.....									69,273 37 109 44
	13,849 74				1,767 04				1,767 04 13,849 74
	32,490 30 Cr. 8,889 19			3,030 98	2,427 96			37,949 24 Cr. 8,889 19	29,060 05
Repair Base— Operating expenses..... Percentages Cr.....				13,843 51 Cr. 17,908 40	5,229 80			19,073 31 Cr. 17,908 40	1,164 91 7,325 60
Fleet General— Arm. Supp. Depot— Stores..... Operating expenses..... Percentages Cr.....	29,934 00 17,036 02 Cr. 5,384 47			4,121 55 5,872 22	3,204 05 1,971 89			19,007 91 Cr. 5,384 47	35,806 22
Naval cemetery..... Comox rifle range.....				432 01 283 16 ^c	1,175 00 2 55				13,623 44 432 01 1,460 71
	860,918 56	28,194 08	a980 06 b1,248 30	1,207,712 82	c25,960 25 217,641 86	27,561 56	26,011 19		3,013,396 47

(d) New Destroyers under construction at Southampton, England, John I. Thornycroft Co., Ltd., contractors.

8. GENERAL

The general organization of the Naval Service during the year has functioned satisfactorily.

The cruises of H.M.C. ships to the different ports in Canada have proved to be popular, and the reception accorded naval personnel during these visits has been most courteous. The cruise of the two destroyers to the West Indies during the winter months, in addition to the valuable training results attained, was an excellent advertisement for Canada. The Canadian ships were present at the tercentenary celebration at Nasseau, Bahamas. The following extract from the address in reply to the Governor of the Bahamas' speech on the occasion of the opening of Parliament on March 18, 1930, gave a clear idea of the appreciation with which the Canadian visitors were received:—

"We regard the visit of the destroyers *Champlain* and *Vancouver* of the Royal Canadian Navy as a happy omen, and evidence of the expanding relations between the Great Dominion and her Imperial colleagues in the West Indies."

The co-operation between the Naval, Militia and Air Forces has been further forwarded and joint operations by all three working in conjunction were very gratifying.

The following extract from the communication received from the militia authorities in regard to joint operations on the west coast is quoted.

"The assistance rendered by the officers and ratings of the Royal Canadian Navy was most satisfactory, and the manner in which the work was carried out is greatly appreciated."

The value of assistance rendered to ships of the Royal Navy is conveyed in the following extract from a communication received from the Commander in Chief, America and West Indies Squadron:—

"I have the honour to inform you that I have received from the Commanding Officer, H.M.S. *Colombo*, a report on the musketry course carried out by that ship during her recent stay at Comox, B.C.

"The Commanding Officer states that H.M.C.S. *Armentieres* was of great assistance, and that the Canadian Naval authorities gave most valuable help.

"I wish to convey my thanks to you for such valuable co-operation, and I beg that you will transmit them also to the Royal Canadian Naval authorities at Esquimalt."

The health of the naval forces has been excellent throughout the year.

I wish to express my appreciation of the esprit de corps of all naval and civil personnel of the Naval Service.

I am, sir,

Your obedient servant,

WALTER HOSE,
Commodore, R.C.N.,
Chief of the Naval Staff.

AMERICAN SOCIETY OF CLIMATE ENGINEERS

MEMBER

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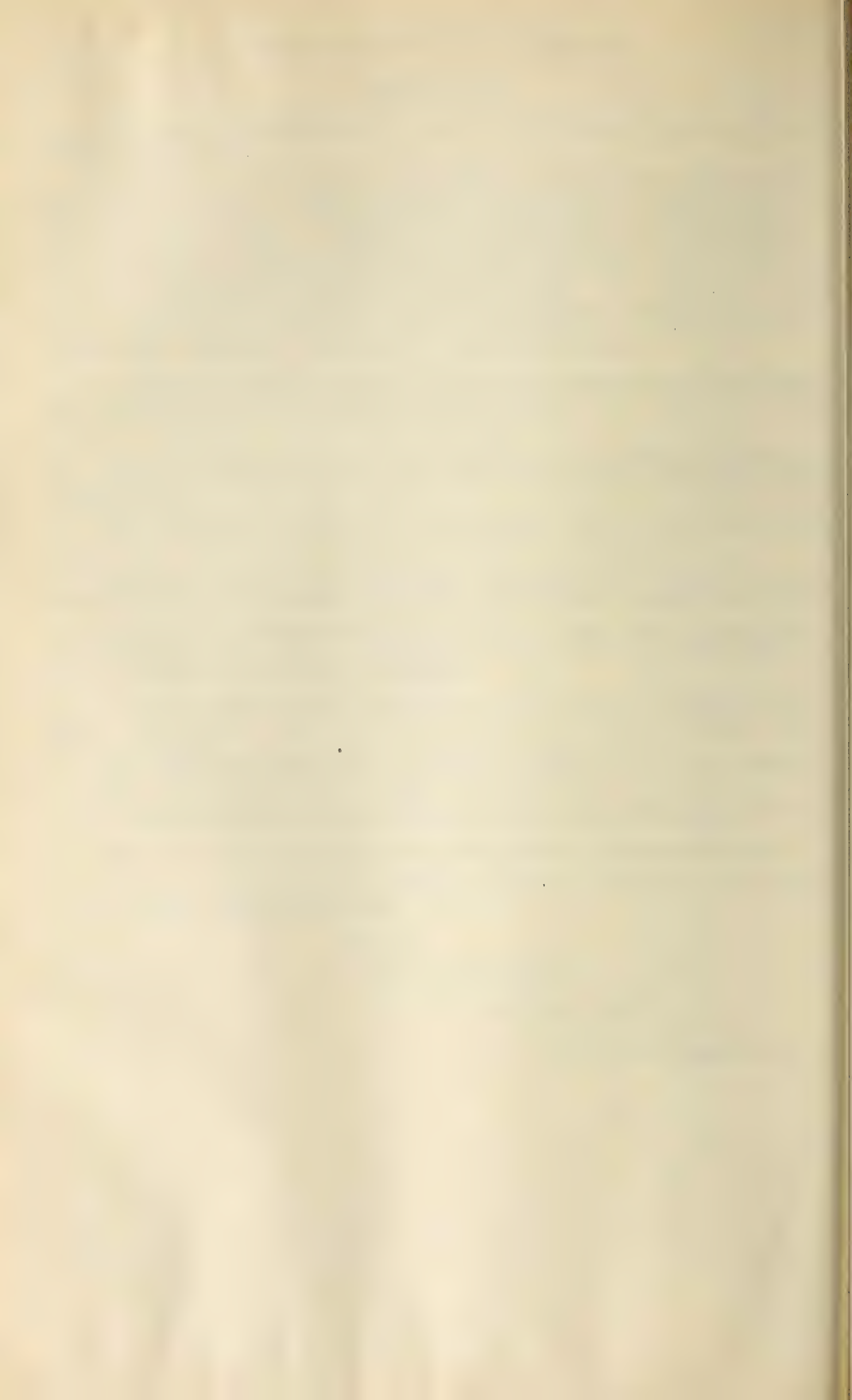
CLIMATE ENGINEERING SOCIETY

CLIMATE ENGINEERING SOCIETY

CLIMATE ENGINEERING SOCIETY

CLIMATE





DOMINION OF CANADA

REPORT OF THE WORK

OF THE

DEPARTMENT OF

PENSIONS AND NATIONAL HEALTH

THE BOARD OF PENSION COMMISSIONERS FOR CANADA

AND

THE FEDERAL APPEAL BOARD

FOR THE YEAR ENDING MARCH 31

1930



OTTAWA

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To His Excellency the Right Honourable the Viscount Willingdon, G.C.S.I.,
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief
of the Dominion of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Pensions and National Health, including the reports of the Board of Pension Commissioners for Canada and the Federal Appeal Board, for the fiscal year ended March 31, 1930.

I have the honour to be,

Your Excellency's most obedient servant,

MURRAY MACLAREN,

Minister of Pensions and National Health.

December 31, 1930.



THE DEPARTMENT OF PENSIONS AND NATIONAL HEALTH

MINISTER—Col. The Hon. Murray MacLaren, C.M.G., M.D., C.M. (Edin.), M.R.C.S., F.A.C.S.
DEPUTY MINISTER—Lt.-Colonel J. A. Amyot, C.M.G., M.B., Tor.

PENSIONS

Head Office.....Daly Building, Ottawa

ASSISTANT DEPUTY MINISTER—J. W. McKee.

DIRECTOR OF MEDICAL SERVICES—Lt.-Colonel Ross Millar, M.D.

SECRETARY—E. H. Scammell, F.C.I.S.

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CHIEF ADMINISTRATIVE ASSISTANT—Major A. M. Wright.

DIRECTOR ORTHOPÆDIC APPLIANCES AND VETCRAFT—Major J. L. Melville, M.C.

DEPARTMENTAL PURCHASING AGENT—Major A. U. Meikle, M.C.

ARCHITECT—W. H. George.

CHIEF DENTAL OFFICER—D. D. Wilson, D.D.S.

SUPERINTENDENT OF EMPLOYMENT—D. F. Rowe.

CHIEF OFFICIAL SOLDIERS' ADVISER—Captain K. G. Macdonald.

District Offices—

"A" District, Province of Quebec—

Head Office, Labelle Building, Montreal, P.Q.

Branch Office, Merger Building, Quebec, P.Q. (Medical Clinic only.)

"B" District, Nova Scotia and Prince Edward Island—

Camp Hill Hospital, Halifax, N.S.

"C" District, Eastern Ontario—

Head Office, 3rd Floor, Daly Building, Ottawa, Ont.

Branch Office, Post Office Building, Kingston, Ont.

"D" District, Central Ontario—

Head Office, Christie Street Hospital, Toronto, Ont.

Branch Office, Duffield Building, Jackson Street, Hamilton, Ont.

"F" District, Western Ontario—

Head Office, Westminster Hospital, London, Ont.

Branch Office, 7 Metropolitan Building, Windsor, Ont.

"G" District, Manitoba—

Head Office, Deer Lodge Hospital, Winnipeg, Man.

Branch Office, Customs Excise Warehouse, Port Arthur, Ont.

"H" District, Saskatchewan—

Head Office, Veteran Block, Regina, Sask.

Branch Office, Canada Building, Saskatoon, Sask.

"I" District, Alberta—

Head Office, 517 Eighth Avenue West, Calgary, Alta.

Branch Office, Strathcona Postal Station, Strathcona, Alta.

"J" District, British Columbia—

Head Office, Shaughnessy Hospital, Vancouver, B.C.

Branch Office, Post Office Building, Victoria, B.C.

"K" District, New Brunswick—

Lancaster Hospital, West Saint John, N.B.

verseas Office—Canadian Building, Trafalgar Square, London, S.W. 1, England.

BOARD OF PENSION COMMISSIONERS FOR CANADA

Office.....Daly Building, Ottawa

CHAIRMAN—J. T. C. Thompson, D.S.O., K.C.

COMMISSIONERS—J. F. McQuay, M.D., J. F. Ellis, M.D.

CHIEF MEDICAL ADVISER AND ACTING COMMISSIONER—R. J. Kee, M.D.

SECRETARY—J. A. W. Paton.

FEDERAL APPEAL BOARD

Office.....Elgin Building, Ottawa

CHAIRMAN—Colonel C. W. Belton, M.B., C.M.

COMMISSIONERS—C. B. Reilly, K.C., Lt.-Colonel J. H. Roy, M.C., Bruce L. Wickware, M.D., Captain C. W. E. Meath.

SECRETARY—Lt.-Colonel C. B. Topp, D.S.O., M.C.

NATIONAL HEALTH

Office.....Elgin Building, Ottawa

FOOD AND DRUG LABORATORIES.....319 Queen St., Ottawa

CHIEF EXECUTIVE ASSISTANT—J. J. Heagerty, M.D., D.P.H.

SECRETARY—Major F. H. Brown, M.C.

CHIEF ACCOUNTANT—J. Anderson.

CHIEF, DIVISION OF QUARANTINE AND IMMIGRATION MEDICAL SERVICE—J. D. Pagé, M.D.

CHIEF DOMINION ANALYST—H. M. Lancaster, B.A.Sc.

CHIEF, LABORATORY OF HYGIENE—Norman MacL. Harris, M.D.

CHIEF, DIVISION OF CHILD WELFARE—Helen MacMurchy, M.D.

CHIEF, NARCOTIC DIVISION—Colonel C. H. L. Sharman, C.M.G., C.B.E.

CHIEF, PROPRIETARY OR PATENT MEDICINE BRANCH—L. P. Teevens.

HOSPITAL ADVISORY SERVICES—B. Evan-Parry, M.R.A.I.C.

CHIEF SANITARY ENGINEER—Captain G. H. Ferguson, M.C.

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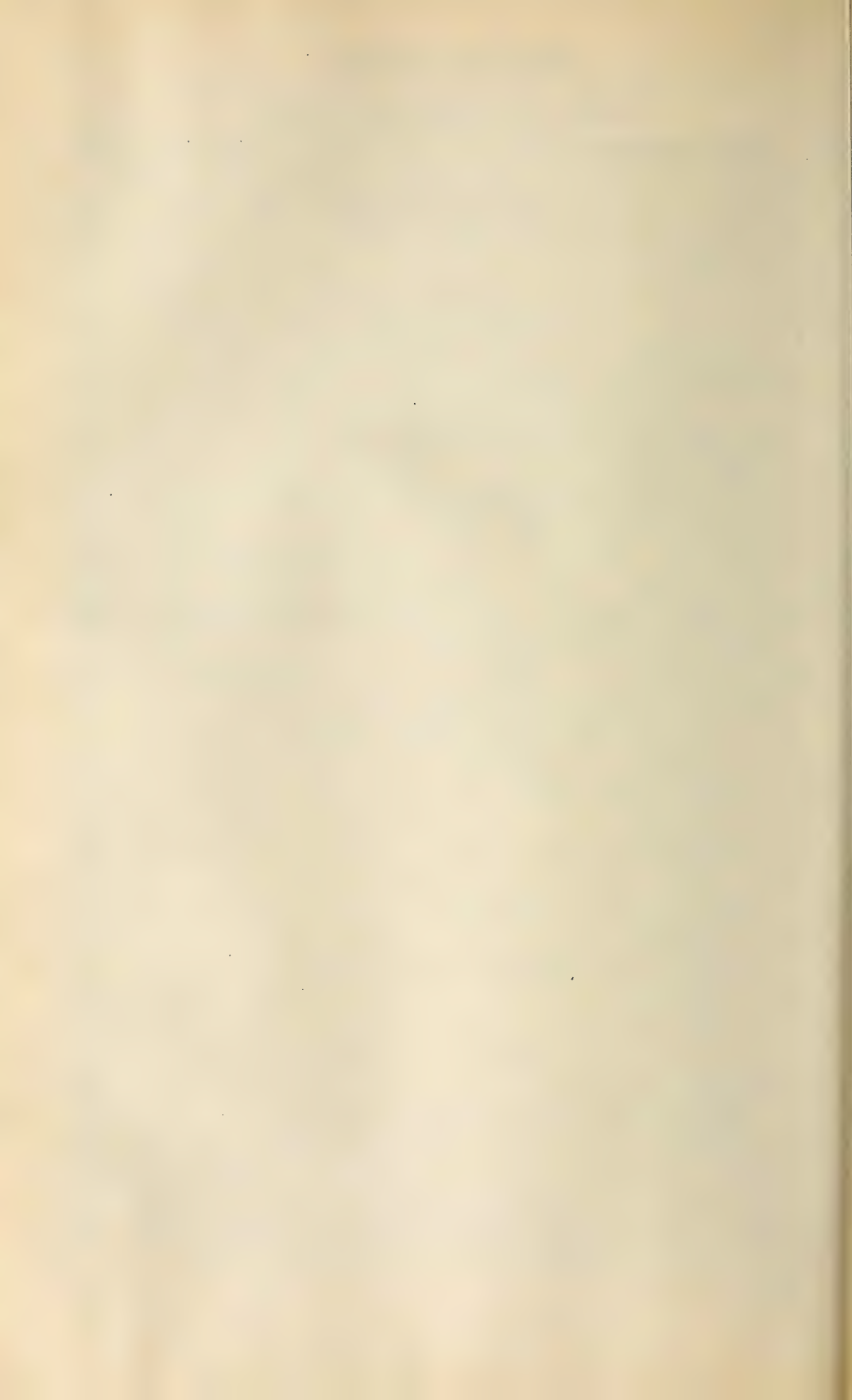
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INTRODUCTORY LETTER
TO REPORT OF THE
DEPARTMENT OF PENSIONS AND NATIONAL HEALTH

Colonel, the Hon. MURRAY MACLAREN, C.M.G., M.D., C.M. (Edin.) M.R.C.S.,
F.A.S.C., M.P.

Minister of Pensions and National Health,
Ottawa,

SIR,—In accordance with your instructions, I have the honour to submit the attached report of the work of the Department of Pensions and National Health, Board of Pension Commissioners for Canada and the Federal Appeal Board for the fiscal year 1929-30.

The report is divided into four sections:

- (1) Department of Pensions and National Health, Pensions Division.
- (2) Board of Pension Commissioners for Canada.
- (3) The Federal Appeal Board.
- (4) The Department of Pensions and National Health, Health Division.

DEPARTMENT OF PENSIONS AND NATIONAL HEALTH

PENSIONS DIVISION

The work of the Pensions Division has continued to expand during the fiscal year as is indicated by the statistics and tables contained in the attached report.

The number of admissions to hospital during the previous year was 8,890, a greater number than in any year since 1922. During the year under review, the number was 9,991. The total number who received in-patient treatment was 12,828, as against 12,147 in 1928-29 and 11,030 in 1927-28. Treatments under the out-patient department increased from 104,091 to 122,651.

Of the number actually in hospital on March 31, 1930, 2,103 were in departmental hospitals, while 1,300 were in civil institutions, making a total of 3,403, as against a total of 2,973 at the end of the previous fiscal year.

The number of veterans' care cases showed an increase of 7, the total being 183.

The output of the orthopædic and surgical appliance factories has been maintained with a slight increase.

The number of pensioners who have been granted relief was 4,182 in 1927-28, 4,647 in 1928-29, and 5,548 in 1929-30.

In the Vetract Shops, 206 men were admitted and 198 discharged. The number employed on March 31, 1930, was 304.

Vocational and probational training have been continued to a small extent. Twenty-four men were taken on for vocational training and 45 for probational training during the year.

There was a falling off in the number of applications for returned soldiers' insurance, due, doubtless, to the monetary stringency. The number of applications was 3,580, as against 4,757 during the previous fiscal year. Two hundred and eighty-one applications were refused for various reasons. Notwithstanding the employment situation, the number of surrenders was slightly less than during the previous year. The number of policies in force on March 31, 1930, was 29,113, an increase during the year of 1,640.

The provision under which the department assumes responsibility in respect of accidents sustained by pensioners of 25 per cent and upwards while engaged in industry, continues to be of benefit to these men as otherwise they would, in many cases, be excluded from employment. The expenditure is largely governed by the number of fatal accidents. During the fiscal year under review, the number of claims made was 209 and the expenditure was \$35,727 which is practically double the expenditure during 1928-29, although only about one-half of that in 1927-28.

The following is an epitomized statement of the manner in which the funds appropriated by Parliament have been dealt with and also sets forth the costs of administration and the adjudication of pensions in amount and percentage.

Direct payments to men and dependents.....		\$44,348,724 59
Payments for services to men and dependents.....		3,954,283 22
Capital expenditures		57,594 74
Stores purchased		607,773 94
Payments to outside organizations		44,414 73
Recoverable expenditures		170,266 63
		<hr/>
Insurance premiums revenue	\$1,666,895 43	\$49,183,057 85
Casual revenue	150,904 71	
		<hr/>
		1,817,800 14
		<hr/>
Administration expense		\$51,000,857 99
		<hr/>
		1,344,425 32
		<hr/>
Expense of the Federal Appeal Board and the Board of Pensions Commissioners		\$52,345,283 31
		<hr/>
		503,882 09
		<hr/>
		\$52,849,165 40

DEPARTMENTAL ADMINISTRATION EXPENSE

General, Treatment, Pensions and returned Soldiers' Insurance	\$ 1,344,425 32
Percentage—Departmental administration	2.544%

ADJUDICATION OF PENSIONS

Board of Pension Commissioners	\$331,639 23	
Federal Appeal Board	172,242 86	
Percentage—Adjudication of pensions		503,882 09
		.953%
Total administration and adjudication expense	\$ 1,848,307 41	
Percentage—All expense		3.497%

Summarized and complete details of the work of the Board of Pension Commissioners for Canada are included in the sections of the report governing the activities of this board.

Since the end of the fiscal year as a result of legislation passed at the first session of Parliament in 1930, a number of changes have been made in the work of the department and in the provisions of the Pension Act. After a general discussion in Parliament, all matters concerning the welfare of the veterans were referred to a special committee in the House of Commons. The desire to enlarge

the scope of the legislation in order specially to benefit those who were in need was evident throughout the entire procedure and the report submitted by the committee was unanimous.

The department presented a tentative Bill providing for the issue of allowances to veterans in Canada, both pensioners and non-pensioners, who are unemployable by reason of intangible results of their war service apart from any consideration of their pensionable disability. This Bill with some minor amendments was approved. The Act based thereon follows the lines laid down in the Old Age Pension Act, but sets an age limit of sixty instead of seventy, or an earlier age if the veteran is permanently unemployable by reason of physical or mental disability. The maximum allowance is \$240 per annum for a single man, and \$480 per annum for a married man if he and his wife are residing together. An income of \$125 per annum enjoyed by a single man, or \$250 enjoyed by a married man, whether consisting of personal income or pension, will not be taken into account, but anything in excess of these sums, other than casual earnings, will reduce the allowances payable.

Departmental officials have recognized for several years that there was an economic necessity to render some assistance, other than by way of pension, to men permanently unable to engage in remunerative employment who have seen real service, and the present Act, after many months of investigation of the problem, is the result. It does not apply to all who served in the Canadian forces, but only to those who served in a theatre of actual war, or who are in receipt of a pension or who have accepted a final payment in lieu of annual pension for injury or disease incurred or aggravated during service in respect of 5 per cent or more total disability. In addition it applies to those who served in any of His Majesty's forces or the forces of any of His Majesty's Allies, who were domiciled in Canada at the time of enlistment and who served in a theatre of actual war.

The operation of the Act is placed under a War Veterans' Allowance Committee consisting of three members. This committee is independent of the department, although after it has granted an allowance, the department is charged with the duty of the payment and administration thereof.

The major amendments to the Pension Act deal with the re-hearing of pension applications, the lodgment of appeals, the removal of time limits, the broadening of the meritorious section, the stoppage of final payments, the reinstatement to pension of pensioners who accepted a final payment, the provision that marriage after the appearance of the disability before the 1st of January, 1930, is not a bar to the granting of a widow's pension, and a section dealing with the "benefit of doubt".

Under the amendments, the Federal Appeal Board ceased to function on September 30, 1930. Provision was made for the appointment of a Pension Tribunal consisting of nine persons and a Pension Appeal Court consisting of three persons.

The new procedure provided that applications be made in the first instance to the Board of Pension Commissioners for Canada, but that if a pension is not awarded, the case be referred, through the channels provided for in the Act, to the Pension Tribunal, to be dealt with by a quorum of that body at an open hearing.

An appeal lies from any decision of the Pension Tribunal to the Pension Appeal Court on the subject of attributability, or whether any pre-enlistment disability was wilfully concealed, was obvious, was of a nature to cause rejection

from service, or was congenital; or in respect of the degree of any pre-enlistment disability; or the right to receive pension in respect of any period prior to the date of the application therefor; or the jurisdiction of the Board of Pension Commissioners or the Pension Tribunal to deal with an application; or the interpretation of any provision of the Pension Act. There is no appeal in respect of assessment. All applications previously disposed of by the Federal Appeal Board or the Board of Pension Commissioners may be renewed under the amendment.

Provision was made for the establishment of a branch of the department to be known as the "Veterans' Bureau". This has taken the place of the previous organization of Soldiers' Advisors. The head of the bureau is known as the Chief Pensions Advocate and cases are presented to the Tribunal and the Court by him and by Pensions Advocates located in various parts of Canada. In addition Commission Counsel have been appointed to appear on the hearing of any application and to assist the Pension Tribunal and the Pension Appeal Court in disposing of claims.

By the removal of the time limit, applications for pension or for reconsideration of any decision or award can be made at any time.

The Board of Pension Commissioners, acting alone, is authorized to award a compassionate pension or allowance under the meritorious section. Applications under this section may be renewed before the Pension Appeal Court by its order.

Notwithstanding that the granting of final payments to those with a pensionable disability of under 15 per cent has been of material benefit to a number of pensioners, in many cases it has created a hardship, in that the money paid has been expended and no further pension has been payable unless the disability has increased. Under an amendment to this effect, no further final payments can be made, and those who have already received such payments are being restored to pension as from the time at which the amount of the final payment received was equal to the sum of the instalments of pension which would have been paid if pension had been continued in the same monthly amount. The restoration to pension and the continuation thereof is subject to the condition that the disability has persisted.

The provision that the widow of a member of the forces whose death results from a war disability shall be entitled to a pension, if she was married to such a member of the forces either before he was granted a pension or before the first January, 1930, has benefited between eight hundred and nine hundred widows, and it will benefit a great many in the years to come.

From the commencement of the Pension Act there has been a provision that the widow of a man who was in receipt of a pension of 80 per cent or upwards, would be granted a pension on the death of her husband, whether his death was attributable to his service or not. At first the time limit during which death from a non-service disability must occur was set at five years from date of discharge or date of commencement of pension, meaning any degree of pension. This was subsequently enlarged to ten years. Reference to the date of discharge has now been struck out and the ten-year period made to run from the time the pensioner is or was placed on a pension of 80 per cent or upwards.

With regard to the "benefit of doubt", it may be well to quote the phraseology of the Act which reads as follows:—

"Notwithstanding anything in this Act, on any application for pension the applicant shall be entitled to the benefit of the doubt, which shall mean that it shall not be necessary for him to adduce conclusive proof of his right to pension applied for, but the body

adjudicating on the claim shall be entitled to draw and shall draw from all the circumstances of the case, the evidence adduced and medical opinions, all reasonable inferences in favour of the applicant."

The work of the Federal Appeal Board during the fiscal year is set out in the section of the report covering the activities of the Board. In view of the fact, however, that the Board ceased to function on September 30, 1930, the following general particulars are given. During the six months subsequent to March 31, 2,080 cases came before the board for hearing. The monthly average of hearings in this period was considerably more than in any previous 6 months of the board's existence. During this time, 2,238 claims were registered.

In the entire seven years of the board's existence 22,237 appeals were placed before it. Of this number 10,602 were heard; judgments were rendered on all but 81 of the cases heard. The greater number of the 81 cases on which judgment was not issued were claims where the hearings had been adjourned in order that the appellant might endeavour to obtain additional evidence in connection with his claim.

Of the balance of 11,635 cases registered with the board, 4,167 were disposed of as being outside the board's jurisdiction; 1,299 appeals were re-opened and settled by the Board of Pension Commissioners without the necessity of coming to appeal hearing; 754 was the total of cases where further information was required before an exact classification could be made; this including 251 appeals received in the last few days of the board's existence. 5,415 cases normally would have come before the board for hearing later, although in 1,749 of these Official Soldiers' Advisers had stated that they were not ready to proceed.

The members of the board were appointed by Order in Council dated August 17, 1923, and its work continued from that time without a break until its dissolution on September 30, 1930.

The total additional annual liability in respect of pensions awarded under decisions of the Federal Appeal Board on account of adjustments made up to August 31, 1930, was \$823,167.88. In addition the sum of \$2,280,417.80 was paid to ex-members of the forces and their dependents on account of retroactive adjustments of pension and treatment allowances under decisions of the board.

NATIONAL HEALTH DIVISION

During the year under review, in the administration of the Food and Drugs Act through the Food and Drugs Division, considerable progress was made in the methods of controlling adulteration and misbranding, not only in food and drugs of Canadian manufacture, but also in those imported.

Much has been accomplished through the Narcotic Division in the control of the distribution of narcotics, and the very material improvement mentioned in my last report, has been continued.

In the Immigration Medical Inspection Division, the policy of having the medical examination of prospective emigrants to Canada from the British Isles and the continent of Europe conducted prior to their embarkation was continued with satisfactory results.

The quarantine service at the principal ocean ports was maintained and no major infectious disease made its appearance during the year.

The work of the Division of Child Welfare on Maternal Mortality has resulted in increased attention being paid to that subject by the medical profession and the public. The new publications of the Division on Infantile Paralysis and Rickets were in great demand by physicians and the general public.

The chief sanitary engineer of the department, through his division, reports further material progress in the protection of the travelling public and crews aboard common carriers in traffic throughout the Dominion of Canada. The work done during the Shrine Convention at Toronto has made available interesting and worthwhile information concerning a sanitary phase of railroad travel which has not been brought to light heretofore. Conventions involving the movement of thousands of people present a problem that has to be carefully handled by the railroads and sanitarians concerned.

I have the honour to be, sir,

Your obedient servant,

J. A. AMYOT,

Deputy Minister.

PENSIONS DIVISION

MEDICAL TREATMENT

STATEMENT SHOWING TOTAL TREATMENT STRENGTH OF DEPARTMENTAL INSTITUTIONS ACCORDING TO MEDICAL CLASSIFICATIONS ON MARCH 31, 1930

District	Institution	General		Mental		T.B.		Totals		Total strength
		In-pats.	Out-pats.	In-pats.	Out-pats.	In-pats.	Out-pats.	In-pats.	Out-pats.	
A	Ste. Annes Hospital.....	121		271		31		423		423
B	Camp Hill Hospital.....	191	1			8		199	1	200
D	Christie Street Hospital.....	381	5	2		33	1	416	6	422
F	Westminster Hospital.....	101		428		12		541		541
G	Deer Lodge Hospital.....	165		3		3		171		171
I	Colonel Belcher Hospital.....	102		1		2		105		105
J	Shaughnessy Hospital.....	175	1	1		17	1	193	2	195
K	Lancaster Hospital.....	55					1	55	1	56
	Total.....	1,291	7	706		106	3	2,103	10	2,113

TREATMENT ONLY PATIENTS

Of the total number of patients on the strength of the department, 627 were undergoing treatment without compensation. These were distributed as follows:—

Departmental Institutions.....	466
Other Institutions in Canada.....	158
In England.....	1
In United States.....	2

STATEMENT OF EX-MEMBERS OF THE ALLIED FORCES TREATED IN CANADA DURING THE FISCAL YEAR ENDING MARCH 31, 1930

	On strength 31-3-29	Admissions	Discharges	Deaths	On strength 31-3-30
Australian.....	6	13	13	2	4
French.....		4	4		
Newfoundland.....	4	16	17		3
New Zealand.....	1	6	5		2
South African.....	2		1	1	
United States.....	8	16	14	2	8
Total.....	21	55	54	5	17

The following figures give the approximate number of admissions to hospital by the Military Hospitals Commission and the department to March 31, 1930:—

July 1, 1915 to December 31, 1916, by the Military Hospitals Commission, approximately.....	22,742
Jan. 1, 1917 to March 31, 1918.....	28,258
April 1, 1918 to December 31, 1919, by D.S.C.R.....	36,625
January 1, 1920 to December 31, 1920.....	23,591
January 1, 1921 to December 31, 1921.....	13,890
January 1, 1922 to December 31, 1922.....	10,015
January 1, 1923 to December 31, 1923.....	8,516
January 1, 1924 to March 31, 1924.....	2,461
April 1, 1924 to March 31, 1925.....	7,978
April 1, 1925 to March 31, 1926.....	7,710
April 1, 1926 to March 31, 1927.....	7,243
April 1, 1927 to March 31, 1928.....	8,191
April 1, 1928 to March 31, 1929.....	8,890
April 1, 1929 to March 31, 1930.....	9,941

Total..... 196,051

CLINICAL TREATMENTS

May 1, 1919 to December 31, 1919.....	126,057
January 1, 1920 to December 31, 1920.....	447,142
January 1, 1921 to December 31, 1921.....	300,895
January 1, 1922 to December 31, 1922.....	216,991
January 1, 1923 to December 31, 1923.....	167,291
January 1, 1924 to March 31, 1924.....	42,156
April 1, 1924 to March 31, 1925.....	142,047
April 1, 1925 to March 31, 1926.....	134,248
April 1, 1926 to March 31, 1927.....	120,141
April 1, 1927 to March 31, 1928.....	102,580
April 1, 1928 to March 31, 1929.....	104,091
April 1, 1929 to March 31, 1930.....	122,651
Total.....	2,026,290

SUMMARY OF TREATMENT STRENGTH

	General		Mental		T.B.		Totals	
	In	Out	In	Out	In	Out	In	Out
Departmental institutions.....	1,291	7	706	.....	106	3	2,103	10
Institutions in Canada.....	494	3	351	2	256	.....	1,101	5
Institutions in Great Britain.....	31	2	42	1	8	.....	81	3
Institutions in United States.....	58	.....	25	.....	35	.....	118	.....
Out-patient class: Attending office clinics.....	.....	26	.....	.....	.....	.....	.....	26
	1,874	38	1,124	3	405	3	3,403	44

ADMISSIONS, DISCHARGES, DEATHS, AND TOTAL PATIENT STRENGTH

1929	Admissions			Discharges			Deaths	Total strength
	General	Mental	T.B.	General	Mental	T.B.		
April.....	605	15	76	675	11	92	29	2,887
May.....	665	11	73	678	15	105	37	2,801
June.....	616	7	64	653	12	68	29	2,726
July.....	629	11	54	646	7	72	28	2,667
August.....	580	8	47	621	12	65	36	2,568
September.....	592	9	61	483	7	43	23	2,674
October.....	695	7	75	614	19	64	16	2,738
November.....	838	16	118	716	12	71	39	2,872
December.....	703	12	69	560	8	58	29	3,001
1930								
January.....	1,075	16	103	736	14	73	32	3,340
February.....	910	8	78	758	11	73	33	3,461
March.....	1,001	16	78	992	9	71	37	3,447
Totals.....	8,909	136	896	8,132	137	855	368	*3,447

The above figures include Ex-Imperials—Admissions..... 481
Discharges..... 445
Patient strength as at March 31, 1929..... 2,998
*Patient strength as at March 31, 1930..... 3,447

COMPARATIVE TREATMENT STRENGTH

The following statement shows the number of In-Patients and Out-Patients as at the end of 1921, 1922, 1923, 1924, and the fiscal years ending March 31, 1925, 1926, 1927, 1928, 1929 and 1930:—

All Institutions—Year	In patients	Out patients	Total
December 31, 1921.....	5,053	287	5,340
December 31, 1922.....	4,014	293	4,307
December 31, 1923.....	3,619	125	3,744
December 31, 1924.....	3,347	80	3,427
March 31, 1925.....	3,452	77	3,529
March 31, 1926.....	3,039	58	3,097
March 31, 1927.....	2,805	34	2,839
March 31, 1928.....	3,261	57	3,257
March 31, 1929.....	2,973	25	2,998
March 31, 1930.....	3,403	44	3,447

VETERANS CARE CASES

On March 31, 1930, there were 183 men in departmental and other institutions under this authority, distributed as follows:—

District	Institution	On strength 1-4-29	Admissions	Transfers in	Transfers out	Discharges	Deaths	On strength 31-3-30
A	Ste. Annes Hospital, Ste. Anne de Bellevue, P.Q.....	24	21	2	2	12	1	32
	Royal Victoria Hospital, Montreal, P.Q.....			1	1			
B	Camp Hill Hospital, Halifax, N.S.	5	11			3	1	12
C	Civic Hospital, Ottawa, Ont.		1	1	1		1	
D	Christie Street Hospital Toronto, Ont.....	26	34	5	9	17	6	33
	Red Cross Hospital, Toronto Island, Ont.....			5	5			
	Muskoka Sanatorium, Gravenhurst, Ont.....	1						1
F	Westminster Hospital, London, Ont.....		8	4	1	1		10
	Victoria Hospital, London, Ont.....			1				1
G	Deer Lodge Hospital, Winnipeg, Man.....	11	11	7	4	5		20
	General Hospital, Winnipeg, Man.	2	5	1	4	4		
	St. Boniface Hospital, Winnipeg, Man.....		1			1		
	Convalescent Home, Winnipeg Beach, Man.....			3	3			
H	Grey Nuns Hospital, Regina, Sask.....		1		1			
	Holy Family Hospital, Prince Albert, Sask.....		1		1			
I	Colonel Belcher Hospital, Calgary, Alta.....	14	10	3	1	3	2	21
	General Hospital, Calgary, Alta.			1	1			
	Providence Hospital, Daysland, Alta.....		3					3
	University Hospital, Edmonton, Alta.....		1					1
J	Shaughnessy Hospital, Vancouver, B.C.....	25	25			6	4	40
K	Lancaster Hospital, Saint John, N.B.....	7	6		1	4		8
	County Hospital, E. Saint John, N.B.....		1					1
	Provincial Hospital, W. Saint John, N.B.....			1		1		
	Totals.....	115	140	35	35	57	15	183

DENTAL SERVICES

The Dental Division is responsible for the provision of dental services, but eligibility to receive same is determined by the Board of Pension Commissioners, and the Medical Division.

The following classes are entitled to be supplied with dental relief, the type of dental treatment permissible differing with the classification.

1. Ex-service men who require dental treatment for conditions accepted by the Board of Pensions Commissioners as the result of injuries or disease attributable to service.

2. Ex-service men who are undergoing courses of medical or surgical treatment as in-patients in a hospital, or sanatorium, or as out-patients, certified by the specialist in charge of the case, to require dental attention as an essential part of the treatment occasioned by pensionable disabilities, also pensioners called in for pension examinations certified by the pensions medical examiner to require dental attention to reduce or prevent an increase in the pensionable disability.

3. Ex-service men receiving treatment in a mental institution under the control of the department who are not eligible for dental treatment as above may be given whatever dental attention the dental surgeon may certify to be absolutely necessary for their health and comfort.

Dental services are supplied through departmental clinics and dental representatives. Clinics are located mainly in departmental institutions. Dental representatives provide dental services in those localities not served by departmental clinics, and are paid for such services at departmental rates.

The number of dental clinics operated by the department underwent no change during the fiscal year 1929-30, and remains at ten.

There has been an increase in the number of clinical treatments and number of patients completed during this fiscal year as compared with the previous fiscal year. The following are the comparative figures:—

	1928-29		1929-30	
	Treatments	Patients	Treatments	Patients
Departmental clinics.....	32,517	1,334	32,916	1,475
Dental representatives.....	3,038	318	8,209	708
United States Veterans' Bureau.....	673	65	1,020	94
Total.....	36,228	1,717	42,145	2,277

ORTHOPÆDIC AND SURGICAL APPLIANCES

The manufacture of artificial limbs was first undertaken by the department in 1916, since when there has been a steady progression and development of orthopædic services. These not only include the major type of appliances, i.e. artificial legs and arms, spinal braces, arm and leg splints, orthopædic boots, but also all classes of minor appliances such as artificial eyes, facial masks, eye-glasses, body belts, etc.

This branch is responsible for the manufacture or supply of any prosthesis which a disabled ex-member of the forces has to wear, or use, on account of injury or disease related to his military service; these are supplied, maintained and renewed at departmental expense. Certain beneficiaries who have been accepted for treatment by the department may receive prostheses as an adjunct to treatment when on departmental strength only.

Orthopædic services are rendered through a main manufacturing and fitting depot at Toronto; branch depots at Halifax, Saint John, Montreal, Ottawa, London, Winnipeg, Regina, Calgary and Vancouver, with sub-depots at Edmonton and Victoria.

During the year under review the development of the manufacture of metal limb component parts of Duralumin has been very gratifying and the department is nearing the stage where the entire limb will be produced within the Dominion.

It will be noted from the statistics which follow that appliances are also made for beneficiaries of Allied Governments and Workmen's Compensation Boards, and in addition a few are supplied to beneficiaries of other Dominion Government departments.

NUMBER OF VARIOUS APPLIANCES ISSUED BY THE ORTHOPÆDIC AND SURGICAL APPLIANCES DIVISION

	Delivered prior to April 1, 1929				Delivered during April 1, 1929, to March 31, 1930				
	Dom- inion of Canada	Work- men's Comp- ensation Boards of Canada	London, England	United States of America	Dom- inion of Canada	Work- men's Comp- ensation Boards of Canada	London, England	United States of America	Total
Legs (all types).....	9,458	187	604	303	396	36	26	22	11,032
Arms (all types).....	2,815	203	71	22	61	30	2	3	3,207
Orthopædic boots.....	59,995½	167	1,236½	534	6,398	33	162	78	68,604
Peg legs.....	1,562	108	12	2	26	16	5	.....	1,731
Optical supplies.....	28,864	358	429	383	1,675	64	70	35	31,878
Minor orthopædic appliances.....	184,993½	1,554½	6,254½	2,416	23,083	312	517	429	219,559½
Repairs to legs.....	60,990	248	2,123	571	5,823	35	371	66	70,227
Repairs to arms.....	4,958	93	72	24	382	6	10	1	5,546
Repairs to boots.....	69,094	25	787	449	7,027½	7	98	65	77,552½
Repairs to all other ap- pliances.....	15,328	27	394	56	1,253	.....	33	13	17,104
Totals.....	438,058	2,970½	11,983	4,760	46,124½	539	1,294	712	506,441

EMPLOYMENT

Applications and placements of disabled ex-service men during the fiscal year ending March 31, 1930:—

EMPLOYMENT SERVICE OF CANADA

Placements—Permanent.....	2,285
Placements—Temporary.....	6,065
Cancellations.....	4,603
Unemployed.....	1,729
Total.....	14,682

MONTREAL REHABILITATION COMMITTEE

Placements—Permanent.....	285
Placements—Semi-permanent.....	489
Placements—Temporary.....	1,022
Cancellations.....	200
Unemployed.....	846
Total.....	2,842

EXPENDITURE

Salaries—\$9,199.50. Office expenses—\$614.94. Total—\$9,814.44.

SUMMARY

COMPARATIVE STATEMENT of Applications and Placements of ex-service men during the fiscal year ending Mar. 31, 1929—Mar. 31, 1930.

Year ending	Applicants	Placements	Cancellations	Pending placements
March 31, 1929.....	17,998	11,307	4,565	2,126
March 31, 1930.....	17,524	10,146	4,803	2,575

EMPLOYMENT

Applications for assistance in obtaining employment decreased..... 474
 The number of men for whom employment was found decreased 1,161.
 This is partially accounted for by decreased number of applicants.

Total number of pensioners in Canada, March 31, 1930..... 48,145
 Total number of pensioners outside Canada, March 31, 1930..... 8,851

Total number of pensioners..... 56,996
 Increase in number of pensioners over previous year..... 2,376
 Of this number 2,575 were registered as unemployed, an increase of 449 over previous year.

RELIEF

Relief is issued in the form of orders for food, rent, fuel, etc. When these orders are submitted by vendors or landlords with a certificate that the goods have been delivered or services rendered, payment is made. The actual expenditure during the fiscal year was \$517,947.19, a portion of which was in respect of orders issued prior to March 31, 1929. The value of orders issued during the fiscal year 1929-30 was \$510,081.15.

The following statement shows the relief granted by the department to pensioners and commuted pensioners during 1929-30 as compared with previous years:—

	1926-27	1927-28	1928-29	1929-30
Number of men.....	4,079	4,182	4,647	5,548
Number of times relief issued.....	32,999	38,373	36,602	51,155
Average number of times relief issued per man.....	8.09	9.18	7.88	9.22
Value of relief orders issued.....	\$ 333,222 02	\$ 390,004 02	\$ 367,231 48	\$ 517,947 19

SHELTERED EMPLOYMENT

Veteraft factories operated by the department are located at Halifax, Montreal, Toronto, Hamilton, Winnipeg and Vancouver and at Victoria one is operated under an agreement with the Canadian Red Cross Society. Unfortunately the workshop at Vancouver was totally destroyed by fire on February 19, 1930.

These factories give employment under sheltered conditions to former members of the Forces who have been classified as "Problem Cases." The object is to study carefully the physical and mental condition of the man and to graduate him through different stages of work until his self-confidence and work ability are restored and he is able to accept employment in the outside labour market. Unfortunately industrial conditions have been such that great difficulty has been experienced in placing men in outside industries.

During the year under review efforts were continued towards making the benefits of sheltered employment more active and 206 new cases were admitted and 198 discharged. On March 31, 1930, 292 men were on the strength. The problem of operating these Vetreft Factories with sub-standard labour is a difficult one in view of the keen competition which has to be met, but on the whole the response from those employed, many of whom have little remaining work value, is very good. The poppies and wreaths which are distributed for sale throughout the Dominion on Armistice Day provide work for men who would have little or no value in any other class of occupation.

VOCATIONAL TRAINING

On March 31, 1930, there were 10 men undergoing vocational training, distributed as follows:—

District	On strength 1-4-29	Taken on strength	Struck off strength	On strength 31-3-30
A.....	1		1	—
B.....	2	2	3	1
C.....	2	1	3	—
D.....	14	14	22	6
F.....		1		1
G.....	3	1	4	—
H.....	1		1	—
I.....		1	1	—
J.....	1	4	3	2
K.....				—
Totals.....	24	24	38	10

INDUSTRIAL PROBLEM CASES

On March 31, 1930, 13 men were receiving probational training with industrial or other establishments in an endeavour to help them to become self-supporting. They were distributed as follows:—

District	Employed at	On strength 1-4-19	Taken on strength	Struck off strength	On strength 31-3-30
B	Halifax, Nova Scotia.....		1	1	—
C	Ottawa, Ont.....	7	12	17	2
D	Hamilton, Ont and Toronto, Ont.....	3	7	9	1
G	Winnipeg, Man.....		11	6	5
H	Regina, Sask.....	1	1	2	—
J	Vancouver, B.C. and Victoria, B.C.....		11	7	4
K	Saint John, N.B.....	3	2	4	1
		14	45	46	13

RETURNED SOLDIERS' INSURANCE DIVISION

STATEMENT FOR PERIOD APRIL, 1929, MARCH 31, 1930

POLICIES

Applications received April 1, 1929, to March 31, 1930.....	3,580	for	\$ 8,039,000 00
" refused.....	281	"	717,000 00
Policies issued April 1, 1929, to March 31, 1930.....	3,407	"	7,967,500 00
Surrendered for cash to March 31, 1929.....	3,304	"	7,691,904 00
" " 1929-1930.....	942	"	2,196,395 00
Total surrendered for cash.....	4,246	"	9,888,299 00
Reduced paid-up insurance to March 31, 1929.....	98	"	63,825 50
" " 1929-1930.....	67	"	49,339 00
Total.....	165	"	118,164 50
Reduced paid-up insurance terminated.....	3	"	4,895 00
" " in force.....	162	"	113,269 50
On extended term insurance to March 31, 1929.....	1,848	"	4,038,800 00
" " 1929-1930.....	737	"	1,667,000 00
Total.....	2,585	"	5,705,800 00
Extended term insurance terminated.....	922	"	2,084,000 00
(including those shown as surrendered for cash)			
Total policies on extended term insurance.....	1,663	"	3,621,800 00
Disability claims admitted to March 31, 1929.....	29	"	62,655 51
" " 1929-1930.....	15	"	22,750 00
Total.....	44	"	85,405 51
Terminated or reduced.....	11	"	26,129 02
Disability claims in force.....	33	"	59,276 49

DEATH CLAIMS

Policy value of death claims to March 31, 1929.....	1,967	"	5,451,245 46
" " 1929-30.....	248	"	605,695 96
Total policy value.....	2,215	"	6,056,941 42
Settled by cash payment or annuity to March 31, 1929.....	1,464	"	5,068,828 31
" " 1929-30.....	219	"	587,260 96
Total settled.....	1,683	"	5,656,089 27
Insurance and premiums paid under Sec. 10 R.S.I., March 31, 1929..	451	"	263,417 15
" " " " 1929-30..	33	"	35,185 00
Total.....	484	"	298,602 15
Claims pending settlement March 31, 1930.....	48	"	102,250 00

LAPSES AND REINSTATEMENTS

Lapses to March 31, 1929.....	28,235	"	\$64,039,300 00
" 1929-30.....	3,122	"	7,345,000 00
Total.....	31,357	"	\$71,384,300 00
Reinstatements to March 31, 1929.....	20,818	"	\$47,368,500 00
" 1929-30.....	2,489	"	5,843,500 00
Total.....	23,307	"	\$53,212,000 00
Net lapses.....	8,050	"	\$18,172,300 00

INCOME AND EXPENDITURE

	Dr.		Cr.
Balance of fund March 31, 1929.....	\$ 6,866,911 13		
Income 1929-1930.....	1,668,183 92		
Interest 1929-1930.....	287,503 68		
Expenditures.....		\$ 853,912 47	
Balance.....		7,968,686 26	
	\$ 8,822,598 73	"	\$ 8,822,598 73
Policies in force March 31, 1930.....	29,113	"	\$64,728,863 21

ACCOUNTS BRANCH

The various items of income and expenditure set out in statement No. 1, are in agreement with the amounts shown in the Public Accounts and Auditor General's reports.

Complete details of the financial operations will be found in the statements which follow. These statements are shown in the same form as in preceding year; a short description of each is given:—

1. *Income and Expenditures, Fiscal Year 1929-30*

On the left side is shown the appropriations granted by Parliament; revenue received from all sources, together with the balances of trust funds as at the first of the year.

On the right side is shown the gross disbursements made, divided into direct payments to men and their dependents, both on account of pensions and re-establishment, payments for services rendered such men, and payments made to outside organizations which render service to returned men, unexpended portions of the appropriations voted by Parliament for the fiscal year and the balances of trust funds at the close of the year.

The summary statement covers the main divisions of the department's income and expenditure condensed for reference purposes.

2. *Net Disbursements on Pensions Account for the Period April 1, 1916, to March 31, 1930, by Fiscal Years*

3. *Net Disbursements of the Department of Pensions and National Health on Re-establishment Account for the Period July, 1915, to March 31, 1930, by Fiscal Years*

4. *Current Assets of the Department as at March 31, 1930*

Cash advances made for travelling, petty cash, maintenance accounts, outside institutions, Red Cross Workshops, etc.

Stores—Value food, equipment, etc., held by department for use in hospitals, offices, etc.

Disposal stores—Surplus goods available for sale or transfer to other Government departments.

5. *Vocational Loans as at March 31, 1930*

Outstanding loans distributed by provinces.

6. *Accounts Receivable at March 31, 1930*

Amounts due from Great Britain, British Dominions, United States and Allied Governments for treatment of their ex-nationals, services rendered Canadian Government departments—Department of National Defence, Department of Indian Affairs, etc.—amounts due from outside hospitals and sanatoria.

7. *Passenger, Freight and Express Transportation as at March 31, 1930*

Services of the department on which passenger transportation expense was incurred; freight and express on goods purchased, shipped, etc.; distributed according to railways used.

8. *Department of Pensions and National Health and Pensions Appropriations by Fiscal Years to March 31, 1931*

SUMMARY OF FINANCIAL STATEMENT, FISCAL YEAR 1929-30

Appropriations—Pensions.....	\$42,893,964 11	Direct Payments to Men and Dependents:—	
“ —Re-establishment.....	8,956,037 19	Pensions.....	\$40,160,568 67
Revenue.....	1,199,185 84	Re-establishment.....	4,188,155 92
Casual Revenue.....	150,904 71		—————\$44,348,724 59
Deposits to Trust Funds—1929-30.....	\$ 2,377,646 71	Payments for Services to Men and Dependents.....	3,954,283 22
Balance of Trust Funds at March 31, 1929.....	7,570,897 60	Capital Expenditures.....	57,594 74
		Stores Purchased.....	607,773 94
		Payments to Outside Organizations not under control of the Department.....	44,414 73
		Recoverable Expenditures.....	170,266 63
			—————
		Cost of Administration.....	\$49,183,057 85
			1,344,425 32
			—————
		Casual Revenue.....	\$50,527,483 17
			150,904 71
			—————
		Board of Pension Commissioners.....	\$50,678,387 88
		Federal Appeal Board.....	331,639 23
			172,242 86
			—————
		Balance of Trust Funds at March 31, 1930.....	\$51,182,269 97
		Unexpended Appropriations—Pensions.....	8,663,161 03
		“ “ Re-establishment.....	\$ 2,919,212 22
			383,992 94 3,303,205 16
			—————
			\$63,148,636 16
			—————

NO. 1.—STATEMENT OF INCOME AND EXPENDITURE AS PER STATEMENTS RENDERED TO THE AUDITOR GENERAL, FISCAL YEAR ENDED MARCH 31, 1930

APPROPRIATIONS AND REVENUE

APPROPRIATIONS

<i>Pensions—</i>	
Vote 73 N.W. Rebellion 1885 and General.....	\$ 35,000 00
74 Civil Flying.....	5,000 00
75 European War Pensions.....	42,000,000 00
Statute Militia Pensions Act 1901.....	853,964 11
	<hr/>
	\$42,893,964 11
<i>Re-Establishment—</i>	
Statute Salary—Minister of Department.....	\$ 10,000 00
Vote 19 Civil Government.....	9,300 00
Statute—Salaries—Commissioners B.P.C.....	19,000 00
Vote 232 Care of Patients.....	2,600,000 00
233 Salaries.....	\$ 2,950,000 00
Overdraft	22,458,06
	<hr/>
Vote 234 Compensation.....	1,900,000 00
Overdraft	138,811 47
	<hr/>
235 Vocational Loans.....	
236 Interest on Funds.....	2,000 00
237 Unemployment Relief.....	\$ 250,000 00
444	300,000 00
	<hr/>
238 Operating.....	550,000 00
239 Employers' Liability Compensation.....	300,000 00
240 Sheltered Employment.....	75,000 00
241 Federal Appeal Board.....	\$ 130,000 00
Statute—Salaries—Members, Federal Appeal Board.....	37,000 00
	<hr/>
242 Grant to Canadian Legion, B.E.S.L.....	167,000 00
243 Grant to Last Post Fund.....	10,000 00
Statute Miscellaneous Gratuities.....	20,000 00
	<hr/>
	2,467 66
	<hr/>
	8,956,037 19

DISBURSEMENTS

DIRECT PAYMENTS TO MEN AND DEPENDENTS

<i>Pensions—</i>	
<i>European War Pensions—</i>	
Pensions.....	\$36,718,064 79
Retroactive Adjustments.....	1,275,535 37
First Payments—B.P.C. Awards.....	497,013 60
Federal Appeal Board Awards.....	337,380 05
Gratuities.....	111,333 40
Final Payments by Agreement.....	19,508 71
New Zealand Pensions.....	11,867 72
Supplementary—Imperial.....	222,402 83
“ French, Italian, etc.....	29,095 34
Burial Grants.....	40,609 99
Permanent Force Disabilities.....	16,134 31
	<hr/>
Militia Pensions Act 1901.....	\$39,278,946 11
North West Rebellion 1885 and General.....	854,124 11
Civil Flying.....	27,258 45
	<hr/>
	240 00
	<hr/>
Compensation—Treatment and Training.....	2,196,983 00
Vocational Loans.....	189 64
Interest on Trust Funds.....	2,518 88
Unemployed Relief.....	510,081 15
Sheltered Employment—Wages to Operatives in Department Workshops.....	186,578 76
War Service Gratuity.....	15,698 54
Funds under Administration.....	417,824 41
Industrial Problem Cases.....	4,705 54
Transportation of Blinded Former Soldiers.....	1,715 67
	<hr/>
<i>Returned Soldiers Insurance—</i>	
Death Benefits.....	218,717 13
Annuities.....	321,513 84
Disability Benefits.....	3,183 74
Cash Surrender Values.....	265,078 88
Return of Premiums.....	26,009 28
Renewal Premiums Refunded.....	17,357 46
	<hr/>
	851,860 33
	<hr/>
	4,188,155 92

APPROPRIATIONS AND REVENUE—*Con.*

REVENUE

Vote 232 Care of Patients.....	\$ 192,139 78
233 Salaries.....	78,029 60
234 Compensation.....	158,283 45
235 Vocational Loans.....	138 96
236 Interest on Funds.....	47 91
237 Unemployment Relief.....	1,948 40
238 Operating.....	145,746 16
240 Sheltered Employment.....	430,445 65
241 Federal Appeal Board.....	6,589 15
75 European War Pensions.....	185,656 78
Statute Militia Pensions Act, 1901.....	160 00
	<hr/>
	\$ 1,199,185 84

CASUAL REVENUE

Re-establishment.....	119,970 57
Pensions.....	30,934 14
	<hr/>

FUNDS

<i>War Service Gratuity—</i>	
Balance at March 31, 1929.....	174,577 89
Revenue.....	1,274 66
<i>Returned Soldiers' Insurance—</i>	
Balance at March 31, 1929.....	6,866,911 13
Revenue—Premiums.....	\$ 1,666,895 43
“ Interest on the Fund.....	286,740 03
	<hr/>
	1,953,635 46

Funds under Administration—

Balance at March 31st, 1929.....	529,408 58
Revenue—Pensions, etc.....	422,736 59
	<hr/>

9,948,544 31

DISBURSEMENTS—*Con.*

Re-ESTABLISHMENT

PAYMENTS FOR SERVICES TO MEN AND DEPENDENTS

<i>Hospital Treatment—</i>	
Departmental Hospitals.....	\$ 2,076,968 88
Outside Hospitals and Sanatoria.....	1,238,883 71
Dental Treatment.....	61,807 94
<i>Limb Factory Operations—</i>	
Factory Operations.....	\$ 200,613 52
Outside Purchases and Repairs.....	33,567 10
Appliances Issued and Repairs.....	39 10
	<hr/>
	234,219 72

Transportation—

Patients and Escorts.....	53,366 56
Pensioners.....	56,592 72
Travelling Medical Boards.....	2,279 22
	<hr/>
	112,238 50

Funeral Expenses.

	28,116 85
--	-----------

Sheltered Employment—

Halltax Vetreraft Shop.....	14,772 72
Montreal.....	24,780 70
Toronto.....	64,818 47
Hamilton.....	13,118 03
Winnipeg.....	19,539 72
Regina.....	28 31
Calgary.....	11 77
Vancouver.....	17,924 43
	<hr/>
	154,994 15

Vocational Training Expense.

Rehabilitation Committee—	
Montreal.....	1,511 28
	<hr/>
	9,814 44

Employers' Liability Compensation—

Quebec.....	548 04
Nova Scotia.....	574 75
Ontario.....	13,640 83
Manitoba.....	5,585 28
Saskatchewan.....	375 36
Alberta.....	14,178 00
British Columbia.....	825 49
	<hr/>

35,727 75

\$ 3,954,283 22

Capital Expenditures.....\$ 57,594 74

Stores Purchased—

General Treatment and O. & S.A. Stores.....\$ 342,653 28
 Vetreraft Stores.....265,120 66

607,773 94

PAYMENTS TO OUTSIDE ORGANIZATIONS NOT UNDER CONTROL OF
 DEPARTMENT

Last Post Fund.....20,000 00
 Canadian National Institute for the Blind.....5,970 57
 Grant to Canadian Legion, B.E.S.L.....10,000 00
 Can. Red Cross Society—Victoria Workshop....8,444 16

44,414 73

RECOVERABLE EXPENDITURES

Cash Advances.....36,285 03
 Accounts Receivable.....133,981 00

170,266 63

COST OF ADMINISTRATIONS

Salaries—

Minister.....\$ 10,000 00
 Civil Government.....9,300 00
 Executive and General.....1,112,878 95
 Insurance.....51,589 45

1,183,768 40

General—

Telegrams, Telephones, Postage,
 etc.....29,342 55
 Transportation and Travelling....29,699 70
 Transportation and Travelling In-
 vestigators.....4,927 40
 Stationery and Office Supplies....58,187 51
 Rent, Taxes, Insurance and Bond-
 ing.....615 00
 Light, Heat, Power and Water
 Rates.....1,462 96
 Janitors' Supplies.....4,384 70
 Maintenance and Repairs to Build-
 ings, Equipment and Furniture...7,865 83
 Automobile Expense.....5,158 69
 Freight and Express.....3,307 75
 Special Publicity.....3,151 63
 Miscellaneous Expense.....12,553 20

160,656 92

1,344,425 32

Carried forward.....\$63,148,636 16

\$50,527,483 17

STATEMENT OF INCOME AND EXPENDITURE AS PER STATEMENTS RENDERED TO AUDITOR GENERAL, FISCAL YEAR ENDED
MARCH 31, 1930—*Concluded*

APPROPRIATIONS AND REVENUE—*Con.*

Brought forward.....\$63,148,636 16

DISBURSEMENTS—*Con.*

CASUAL REVENUE

Re-establishment.....	119,970 57
Pensions.....	30,934 14
	<hr/>
	150,904 71

\$50,678,387 88

BOARD OF PENSION COMMISSIONERS

<i>Salaries—</i>	
Commissioners.....	19,000 00
Staff.....	281,696 49
	<hr/>
	300,696 49

General—

Telegrams, Telephones, Postage, etc.....	1,775 38
Transportation and Travelling.....	13,364 36
Transportation and Travelling In- vestigators.....	12,004 68
Stationery and Office Supplies.....	1,700 56
Freight and Express.....	702 58
Miscellaneous Expense.....	466 08
Bank and Legal Charges.....	929 10
	<hr/>
	30,942 74

331,639 23

\$51,010,027 11

FEDERAL APPEAL BOARD

Salaries—Members of the Board.....	\$ 37,000 00
“ Staff.....	55,719 53
“ Soldiers’ Advisers.....	33,007 25
General Expenses of Board.....	33,572 60
General Expenses of Soldiers’ Advisers.....	12,943 48
	<hr/>
	172,242 86

172,242 86

\$51,182,269 97

FUNDS

<i>War Service Gratiuity—</i>	
Balance at March 31, 1929.....	\$ 174,577 89
Revenue.....	1,274 66
	<hr/>

Disbursements.....	\$ 175,852 55	
	15,098 54	
Balance at March 31, 1930.....		160,154 01
<i>Returned Soldiers' Insurance—</i>		
Balance at March 31, 1929.....	6,866,911 13	
Revenue.....	1,953,635 46	
	\$ 8,820,546 59	
Payments to Beneficiaries.....	851,860 33	
Balance at March 31, 1930.....		7,968,686 26
<i>Funds under Administration—Pensions, Army Pay, etc.—</i>		
Balance at March 31, 1929.....	\$ 529,408 58	
Revenue.....	422,736 59	
	\$ 952,145 17	
Payments to Beneficiaries.....	417,824 41	
Balance at March 31, 1930.....		534,320 76
		8,663,161 03

UNEXPENDED APPROPRIATIONS

<i>Pensions—</i>		
Vote 73 N.W. Rebellion 1885 and General.....	7,741 55	
74 Civil Flying.....	4,760 00	
75 European War Pensions...	2,906,710 67	
		2,919,212 22
<i>Re-establishment—</i>		
Vote 232 Care of Patients.....	\$ 239,285 14	
235 Vocational Loans.....	1,949 32	
236 Interest on Funds.....	2,529 03	
237 Unemployment Relief...	32,052 81	
238 Operating.....	20,023 88	
239 Employers' Liability Compensation.....	39,272 25	
240 Sheltered Employment...	47,534 22	
241 Federal Appeal Board...	1,346 29	
		383,992 94
Grand Total, Appropriations, Revenue and Funds.....		<u>\$63,148,636 16</u>
Grand Total, Disbursements and Unexpended Balances.....		<u>\$63,148,636 16</u>

No. 2.—NET DISBURSEMENTS ON ACCOUNT OF PENSIONS—APRIL 1, 1916, TO MARCH 31, 1930

Details	Total	April, 1916 to March, 1924		Fiscal Year 1924-25		Fiscal Year 1925-26		Fiscal Year 1926-1927		Fiscal Year 1927-1928		Fiscal Year 1928-29		Fiscal Year 1929-30	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
European War Pensions.....	407,900 889 11	184,096	532 10	33,706	885 88	35,970	776 35	36,614	989 52	38,460	658 72	40,047	757 21	39,093	289 33
North West Rebellion.....	408,961 87	216,718	80	35,348	69	34,028	84	35,264	16	30,689	52	29,653	41	27,258	45
Fenian Raid.....	8,193 54	7,004	38	466	25	662	91								
Militia Long Service.....	7,264,954 01	2,640,869	85	696,274	60	697,919	84	743,626	44	759,175	43	873,123	74	853,964	11
Civil Flying.....	3,349 22	2,005	17	144	05	240	00	240	00	240	00	240	00	240	00
Pensions Administration.....	5,937,479 80	5,937,479	80												
Total Cost of Pensions.....	421,613,827 55	192,900,670	10	34,439,119	47	36,703,627	94	37,394,130	12	39,250,763	67	40,950,774	36	39,974,751	89
Less Casual Revenue.....	784,802 45	395,294	24	78,273	76	148,918	79	47,794	77	26,678	41	56,908	34	30,934	14
Net Cost of Pensions....	420,829,025 10	192,505,375	86	34,360,845	71	36,554,709	15	37,346,325	35	39,224,085	26	40,893,866	02	39,943,817	75

NOTE.—From April 1, 1921, the Administration Expenses of the Board of Pension Commissioners are included with Re-establishment expenditures.

ART. 6. ALL DISBURSEMENTS ON ACCOUNT OF RE-ESTABLISHMENT FROM JULY 1915 TO MARCH 31, 1930

No. 4.—STATEMENT SHOWING DISTRIBUTION OF CURRENT ASSETS BY PROVINCES
AS AT MARCH 31, 1930

District	Province	Total	Cash Advances	Treatment Stores	Vetcraft Stores	Disposal Stores
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
H.O.	Ottawa.....	19,657 92	1,057 70	18,252 87	172 40	174 95
"A"	Quebec.....	75,331 73		28,729 16	45,958 46	644 11
"B"	Nova Scotia and Prince Ed- ward Island.....	33,749 05		7,816 87	25,087 84	844 34
"C"	Eastern Ontario.....	2,660 37	90 00	2,570 37		
"D"	Central Ontario.....	183,033 34		75,672 45	103,486 23	3,874 66
"E"	Western Ontario.....	19,529 57		18,768 98		760 59
"G"	Manitoba.....	31,346 02		7,903 09	21,258 65	2,184 28
"H"	Saskatchewan.....	6,382 95		6,218 74		164 21
"I"	Alberta.....	11,717 68		11,627 15		90 53
"J"	British Columbia.....	24,513 05	197 45	10,521 10	13,601 40	193 10
"K"	New Brunswick.....	7,104 47		4,681 55		2,422 92
"M"	London, England.....	26 21		26 21		
	Totals.....	415,052 36	1,345 15	192,788 54	209,564 98	11,353 69

No. 5.—STATEMENT SHOWING DISTRIBUTION OF VOCATIONAL LOANS BY DISTRICTS
AS AT MARCH 31, 1930

Quebec.....	\$ 933 05
Nova Scotia and Prince Edward Island.....	1,846 58
Eastern Ontario.....	1,639 31
Central Ontario.....	7,184 87
Western Ontario.....	1,160 84
Manitoba.....	1,082 98
Saskatchewan.....	1,410 24
Alberta.....	3,153 09
British Columbia.....	3,863 20
New Brunswick.....	1,841 39
Total.....	<u>\$24,115 55</u>

No. 6.—ACCOUNTS RECEIVABLE AS AT MARCH 31, 1930

Great Britain.....	\$ 22,603 66
Imperial Ministry of Labour.....	88,035 40
British Dominions, United States of America and other Allied Govern- ments.....	20,337 01
Canadian Government Departments.....	10,492 10
Vetcraft Workshops.....	36,916 62
Other Miscellaneous Accounts.....	14,719 98
Total.....	<u>\$ 193,104 77</u>

No. 7.—TRANSPORTATION EXPENDITURE FISCAL YEAR 1929-30

Service	Total expenditure
Administrative Personnel.....	\$ 12,068 35
Investigations, Administrative and Pensions.....	4,549 02
Transportation, B.P.C. Staff.....	1,656 23
Men called in for treatment or orthopaedic repairs.....	32,470 12
Men called in for clinical treatment.....	5,476 55
Transportation of deceased patients and escorts thereto.....	395 64
Travelling medical boards.....	752 83
Transportation of pensioners.....	46,854 04
Last Post Fund.....	88 61
Vetcraft Staff travelling.....	1,051 58
Blind ex-members of the forces.....	1,617 98
Men taking vocational training.....	144 28
Transportation issued in lieu of relief.....	221 55
O. & S.A. Staff travelling.....	683 74
Members, Federal Appeal Board.....	6,657 71
Federal Appeal Board, Soldiers' Advisers travelling.....	826 14
Federal Appeal Board, ex-Imperial Appellants.....	134 27
	<hr/>
Freight and express.....	\$ 115,648 64
	26,169 84
Total net expenditure.....	<hr/>
Accounts receivable.....	\$ 141,818 48
	6,258 27
Total gross expenditure.....	<hr/>
	\$ 148,076 75

DISTRIBUTION BY RAILWAYS

Passenger—		%
Canadian National Railways.....	\$76,540 00	62.8
Canadian Pacific Railway.....	35,869 60	29.4
Sundry railways.....	9,497 31	7.8
Total.....	<hr/>	100.0
		\$ 121,906 91
Freight and Express—		
Canadian National Railways.....	\$11,196 25	42.8
Canadian Pacific Railway.....	4,313 79	16.5
Canadian National Express.....	7,717 25	29.5
Canadian Pacific Express.....	1,732 05	6.6
Sundry railways.....	1,210 50	4.6
Total.....	<hr/>	100.0
		26,169 84
Total amount paid to Railways.....	<hr/>	<hr/>
		\$ 148,076 75

No. 8.—DEPARTMENT OF PENSIONS AND NATIONAL HEALTH APPROPRIATIONS BY FISCAL YEARS FROM 1923-24 TO 1930-31

	1923-24		1924-25		1925-26		1926-27		1927-28		1928-29		1929-30		1930-31	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
RE-ESTABLISHMENT—																
Civil Government.....	39,200 00		28,820 00		21,500 00		21,560 00		21,560 00		14,920 00		9,300 00			
Capital.....	30,000 00		10,000 00		10,000 00		10,000 00									
Care of Patients.....	3,500,000 00		2,600,000 00		2,350,000 00		2,350,000 00		2,200,000 00		2,450,000 00		2,600,000 00		2,800,000 00	
Vocational Expense.....	5,000 00		20,000 00		5,000 00		5,000 00									
Salaries.....	4,425,000 00		3,553,000 00		3,100,000 00		2,850,000 00		2,725,000 00		2,725,000 00		2,950,000 00		3,106,000 00	
Compensation.....	3,200,000 00		2,100,000 00		1,810,000 00		1,490,000 00		1,350,000 00		1,920,000 00		1,900,000 00		2,300,000 00	
Operating.....	600,000 00		450,000 00		400,000 00		300,000 00		250,000 00		290,000 00		300,000 00		500,000 00	
Vocational Loans.....	500,000 00		200,000 00		350,000 00		375,000 00		450,000 00		250,000 00		550,000 00		250,000 00	
Unemployment Relief.....	35,000 00		20,000 00		10,000 00		3,000 00		3,000 00		2,000 00		2,000 00		2,000 00	
Interest on Funds.....	92,000 00		22,000 00		20,000 00		25,000 00		22,500 00		21,000 00		5,000 00		10,000 00	
Employers' Liability Compensation.....	75,000 00		30,000 00		20,000 00		3,000 00		75,000 00		100,000 00		75,000 00		60,000 00	
Sheltered Employment.....	375,000 00		390,000 00		250,000 00		225,000 00		175,000 00		175,000 00		175,000 00		200,000 00	
Medical Appeal Board.....	50,000 00															
Federal Appeal Board.....	357,995 00		150,000 00		150,000 00		130,000 00		130,000 00		130,000 00		130,000 00		130,000 00	
Repatriation.....	25,000 00															
Special Publicity.....	20,000 00		5,000 00		5,000 00		3,000 00				10,000 00		10,000 00		10,000 00	
Grant to Canadian Legion, B.E.S.L.....													20,000 00		30,000 00	
Salaries and Contingencies B.P.C.....															355,115 00	
Salaries—Commissioners B.P.C.....													19,000 00		19,000 00	
Salaries—Members Federal Appeal Board.....			31,000 00		31,000 00		31,000 00		31,000 00		31,000 00		31,000 00		37,000 00	
Pensions Tribunal.....															32,083 33	
Appeal Court.....															12,833 33	
War Veterans' Allowances.....															1,000,000 00	
War Veterans' Allowance Committee.....															14,666 66	
Total.....	13,304,196 00		9,609,820 00		8,587,500 00		7,893,560 00		7,433,060 00		8,118,920 00		8,776,300 00		10,868,698 32	
PENSIONS—																
European War.....	33,050,000 00		32,990,000 00		35,000,000 00		36,500,000 00		38,600,000 00		39,000,000 00		42,000,000 00		50,000,000 00	
Fenian Raid.....	1,000 00		750 00		750 00											
North West Rebellion.....	40,000 00		45,000 00		40,000 00		35,000 00		40,000 00		35,000 00		35,000 00		35,000 00	
Militia Pensions Act 1901.....	600,000 00		650,000 00		700,000 00		700,000 00		800,000 00		850,000 00		850,000 00		900,000 00	
Civil Flying.....	10,000 00		5,000 00		5,000 00		5,000 00		5,000 00		5,000 00		5,000 00		5,000 00	
Total.....	33,701,000 00		33,690,750 00		35,745,750 00		37,241,000 00		39,445,000 00		39,890,000 00		42,890,000 00		50,940,000 00	
Grand Total.....	47,005,196 00		43,300,570 00		44,333,250 00		45,134,560 00		46,878,060 00		48,008,920 00		51,666,300 00		61,808,698 32	

WORKMEN'S COMPENSATION

Number of Claims and amounts paid to Workmen's Boards and to Employers in respect of pensioners of twenty-five per cent and upwards:—

Province	Number	Amount
		\$ cts.
Quebec.....	7	548 04
Nova Scotia.....	8	574 75
Ontario.....	98	13,640 83
Manitoba.....	45	5,585 28
Saskatchewan.....	4	375 36
Alberta.....	44	14,178 00
British Columbia.....	3	825 49
Total.....	209	35,727 75

STATEMENT OF PERMANENT AND TEMPORARY STAFF AS AT MARCH 31, 1930

District	Staff			Salaries		
	Perm.	Temp.	Total	Perm.	Temp.	Total
				\$	\$	\$
Head Office.....	428	2	430	636,480	2,700	639,180
"A".....	247	16	263	326,424	18,800	345,224
"B".....	89	3	92	123,586	3,000	131,586
"C".....	44	1	45	85,180	2,400	87,580
"D".....	403	19	422	617,590	17,952	635,542
"E".....	242	13	255	288,145	13,608	301,753
"F".....	98	18	116	151,308	19,140	170,448
"G".....	33		33	59,340		59,340
"H".....	73	2	75	128,432	2,760	131,192
"I".....	153	6	159	230,254	8,580	38,834
"J".....	43	1	44	57,112	1,500	58,612
"K".....	9	1	10	17,100	3,000	20,100
"M".....						
Total.....	1,862	82	1,944	2,725,951	93,440	2,819,391

STATEMENT SHOWING DISTRIBUTION OF STAFF BY WAR SERVICE CLASSIFICATION
AS AT MARCH 31, 1929-30

	1929	1930	Percentage
Service in France.....	1,146	1,181 (1)	61.0
Service in England.....	161	162 (2)	8.3
Service in Canada.....	80	76 (3)	3.8
Rejected or exempted from military service.....	13	13	0.7
Over and under age.....	32	47	2.5
Civilians—(Male).....	11	9	0.4
Civilians—(Female).....	429	456 (4)	23.3
Total.....	1,872	1,944	100.0

NOTE:—

- (1) includes 105 nursing sisters.
 (2) " 28 "
 (3) " 5 "
 (4) " 42 "

STATEMENT SHOWING DISTRIBUTION OF MALE STAFF BY WAR SERVICE CLASSIFICATION AS AT MARCH 31, 1929-1930

	1929	1930	Percentage
Service in France.....	1,036	1,076	80.0
Service in England.....	130	134	9.7
Service in Canada.....	75	71	5.1
Rejected or exempted from military service.....	13	13	1.0
Boys and men under and over military age.....	32	47	3.5
Civilians (Male).....	11	9	0.7
Total.....	1,297	1,350	100.0
Male Staff with War Service.....	1,281		94.9
Male Staff without War Service.....	69		5.1

DISABLEMENT FUND STATEMENT

E. H. SCAMMELL, *Trustee*

The following statement of loans, advances and repayments made during the period, April 1, 1929, to March 31, 1930, indicates the activity of the fund:—

Cash on hand 31-3-29.....	\$ 12,687 61	
Sundry advances outstanding 31-3-29.....	48,003 50	
Total advances made—5,980.....	164,983 94	
Refunds received.....		156,608 71
Donations made.....		5,036 22
Bad debts written off.....		305 25
Administration expenses.....		307 94
Sundry loans outstanding.....		48,436 77
Cash on hand 31-3-30.....		14,980 16
	<u>\$ 225,675 05</u>	<u>\$ 225,675 05</u>

DISABLEMENT FUND STATEMENT AS AT MARCH 31, 1930

Subscriptions.....		\$ 93,710 20
Interest on same.....		69,812 97
Securities held at cost.....	\$ 54,871 75	
Face value \$63,000.....		
Loans outstanding—		
Head office.....	37,146 80	
Districts.....	11,289 97	48,436 77
Donations—		
Current period.....	5,036 22	
Previously made.....	25,598 90	30,635 12
Bad debts, written off—		
Current period.....	305 25	
Previous years.....	12,788 90	13,094 15
Administration Expenses—		
Current period.....	307 94	
Previously expended.....	1,197 28	1,505 22
Cash on hand—		
Districts.....	10,378 00	
Head office.....	4,602 16	14,980 16
	<u>\$ 163,523 17</u>	<u>\$ 163,523 17</u>

APPENDIX

ADMINISTRATION OF CANTEEN FUND

ONTARIO

Trustees:

Major Gen. V. A. S. Williams, C.M.G., Chairman.

Lieut.-Col. Bertram O. Hooper, D.S.O., M.C.

Capt. W. S. Haney, M.P.P.

Capt. John Jules Ferry.

Mr. Percy T. Bould.

Major Alexander C. Lewis, Secretary.

On reviewing the operations of the Ontario Canteen Fund the trustees feel that it has functioned very satisfactorily in supplying assistance in urgent cases of need amongst ex-service men and their dependents.

For the year 1928-29 the trustees report that they were able to close the year's operations with a favourable balance on the right side of the books, feeling at the same time that no worthy case brought to their attention had been neglected.

The educational activity is the one in which the trustees are most interested in and is also the one which meets with the most general approval amongst the men themselves.

From the report of 1929-30 it is noted that the demands on the resources of the fund during the year showed a very large increase over the previous period. In accordance with the Board's policy no application deserving of assistance and coming within the fund has been refused or neglected.

The trustees express their appreciation of the assistance they have received from the branches of the Canadian Legion throughout the province.

The following statements of accounts cover the years 1928-29 and 1929-30:—

1928-29

Investments 1-4-28.....	\$ 968,698 42	Relief.....	\$ 37,229 78
Cash on hand.....	55,588 25	Education.....	6,737 00
Interest.....	50,400 63	Administration.....	5,299 46
		Administration 1927-28.....	1,583 33
		Balance on hand.....	34,589 31
		Investments 31-3-29.....	989,248 42
	<u>\$ 1,074,687 30</u>		<u>\$ 1,074,687 30</u>

1929-30

ONTARIO

Investments 1-4-29.....	\$ 989,248 42	Relief.....	\$ 54,350 81
Cash on hand.....	34,589 31	Administration.....	7,406 28
Amount received.....	8,247 40	Cash on hand.....	21,627 24
Interest.....	50,497 62	Investments 31-3-30.....	999,198 42
	<u>\$ 1,082,582 75</u>		<u>\$ 1,082,582 75</u>

CANADA FUND

Amount received.....	\$ 51,418 54	Relief.....	\$ 1,624 30
Interest.....	1,557 50	Cash on hand.....	16,526 74
		Investments 31-3-30.....	34,825 00
	<u>\$ 52,976 04</u>		<u>\$ 52,976 04</u>

QUEBEC

Trustees:

Brig.-General G. E. McCuaig, C.M.G., D.S.O.

Brig.-General E. deB. Panet, C.M.G., D.S.O.

Lt.-Colonel C. B. Price, D.S.O., D.C.M.

Lt.-Colonel John F. Buckley, Secretary.

The trustees have continued the policy previously adopted and carried out, during the year under review.

Relief has been granted and assistance given in cases of ex-soldiers and their dependents which, after thorough investigation, were found deserving. Assistance has been given principally in cases of sickness, accidents or other circumstances beyond the recipients' control.

The following is a statement of receipts and expenditures:—

Investments 1-4-29.....	\$ 294,325 50	Overdraft 1-4-29.....	\$ 203 42
Amounts received.....	2,324 40	Premium on bonds written off,	
Interest, Overseas account.....	15,609 13	Canada account.....	325 50
Refunds, Overseas account.....	25 00	Grants, Overseas account.....	11,224 67
Interest, Canada account.....	611 79	Grants, Canada account.....	115 00
		Administration.....	2,206 99
		Cash in bank.....	4,820 24
		Investments, Canada account, 31-3-30	14,000 00
		Investments, Overseas account 31-3-30	280,000 00
	<u>\$ 312,895 82</u>		<u>\$ 312,895 82</u>

NOVA SCOTIA

Trustees:

Capt. the Rev. Clarence MacKinnon, D.D., Chairman.

Major Edgar J. Vickery, Secretary.

Mr. John Vincent MacNeil.

During the two years under review the Nova Scotia Board of Trustees has continued the policy of granting assistance in cases of ex-service men and their dependents where deserving. Assistance was given to tubercular cases at the sanatorium and locally until such time as more adequate provision could be made for them by the Government.

The trustees have made direct contributions to the Canadian Legion as in this way valuable assistance could be granted to returned men as a whole.

The trustees have also issued loans to ex-service men in temporary difficulties. These loans are repayable to the fund.

The following is a statement of receipts and expenditures:—

1928-1929

Investments.....	\$ 38,563 25	Sickness relief (\$6,001.64, less repayment \$4,009.96).....	1,991 68
Cash on hand, 1-4-28.....	689 76	Unemployment relief.....	3,353 90
Loans outstanding 1-4-28.....	11,397 13	Grant to Legion.....	2,065 00
Income from investments.....	1,192 40	Loan to "Legionary".....	8,000 00
Profit on sale of bonds.....	530 95	Loans to ex-service men.....	13,467 63
Overdraft, Eastern Trust Co.....	251 95	Administration.....	4,006 70
		Cash on hand 31-3-29.....	63 33
		Investments 31-3-29.....	19,677 20
	<u>\$ 52,625 44</u>		<u>\$ 52,625 44</u>

1929-1930

Investments 1-4-29.....	\$ 19,677 20	Overdraft Eastern Trust Co. 1-4-29..	\$ 251 95
Cash on hand 1-4-29.....	63 33	Sickness relief (\$4,340.72 less refunds, \$210.00).....	4,130 72
Loans outstanding 1-4-29.....	13,467 63	Unemployment relief.....	221 55
Loan to "Legionary", outstanding 1-4-29.....	8,000 00	Grant to Legion.....	1,250 00
Allotment from Dominion Govern- ment: Distribution of fund previously reserved against claims.....	1,109 80	Grant for radio at Camp Hill hos- pital.....	250 00
Income from investments.....	829 18	Loans to ex-service men.....	14,677 63
Overdraft, Eastern Trust Co., 31-3-30.	611 41	Loans to Legionary.....	8,000 00
		Loss on sale of bonds.....	126 65
		Administration.....	1,858 37
		Cash on hand 31-3-30.....	108 33
		Investments 31-3-30.....	12,883 35
	<u>\$ 43,758 55</u>		<u>\$ 43,758 55</u>

NEW BRUNSWICK

Trustees:

Major J. P. Bourgeois, Chairman.

Major J. Gilbert Hart, Secretary.

Lieut.-Col. M. C. Buchanan, M.C.

During the period under review the New Brunswick Board of Trustees had administered the fund under the policy pursued in previous years.

In consequence of the exceptional unemployment situation in this province during this year, the demands on the fund have been proportionally greater.

The board having found that in some instances payment in cash did not reach the families, it was decided to adopt the practice of issuing relief by means of order vouchers for groceries, fuel and rent, thereby ensuring relief where the greater distress existed. The present procedure is similar to that followed by the Department of Pensions and National Health.

The method of investigation has been further improved and with the co-operation of the Canadian Legion, the Red Cross Society, the Family Welfare Bureau, the Dominion Employment Bureau and others, complete information of each case has been obtained.

The following is a statement of accounts:—

Investments 1-4-29.....	\$ 87,208 37	Relief and grants, less repayments...	\$ 7,168 64
Cash on hand 1-4-29.....	3 36	Canada service.....	75 00
Loans outstanding 1-4-29.....	150 00	Advance Imperial Canteen fund.....	115 00
Canada fund.....	814 40	Administration.....	1,059 78
Interest.....	3,810 19	Balance on hand 31-3-30.....	541 83
Profit on sale of bonds and exchange...	36 05	Investments 31-3-30.....	83,062 12
	<u>\$ 92,022 37</u>		<u>\$ 92,022 37</u>

BRITISH COLUMBIA

Trustees:

Lt.-Col. A. D. Wilson, D.S.O., Chairman.

Col. W. W. Foster, D.S.O.

Capt. W. Hobart Molson, M.C.

In pursuance of the established policy of the board, relief was given to those entitled to benefit from the fund on account of illness, death or other emergency not provided for through other channels.

Cases may be presented to the trustees for consideration from any source, but it has been found very desirable to obtain them through recognized returned men's organizations, as in this way the information necessary before grants can be made is more easily obtainable, and it might be emphasized

that this Trust Fund cannot be disbursed without the fullest information, and and as so many cases are ones of emergency, it is essential that information should be available promptly.

It will be noted that the fund itself has not been called upon for any expense of administration, the reason being that the provincial government has placed in the hands of the trustees the necessary funds to meet all expenses in connection with disbursement of the Canteen Fund; whilst, as far as the trustees are concerned, they serve without remuneration and travel at their own expense.

The trustees wish to express their appreciation of Brig. General E. W. Hilliam, C.B., C.M.G., D.S.O., who, following the death of the late secretary, Col. F. A. Robertson, acted as honorary secretary for the balance of the year.

The following is a statement of account:—

Investments 1-4-29.....	\$ 213,225 95	Overdraft 1-4-29.....	\$ 1,584 61
Interest.....	9,495 33	Relief.....	36,267 72
Loans repaid.....	500 00	First mortgage.....	1,813 96
Further cash received.....	2,188 80	Bank balance.....	1,487 45
		Investments.....	184,256 34
	<u>\$ 225,410 08</u>		<u>\$ 225,410 08</u>

CANADA FUND

Amount received.....	\$ 13,646 11	Relief.....	\$ 1,190 74
Interest.....	259 97	Bank balance.....	12,715 34
	<u>\$ 13,906 08</u>		<u>\$ 13,906 08</u>

MANITOBA

Trustees:

Brig. General R. W. Paterson, C.M.G., D.S.O., Chairman.
 Brig. General H. M. Dyer, C.B., C.M.G., D.S.O.
 Lt.-Colonel the Rev. G. A. Wells, C.M.G., M.A.

During the year under review the Manitoba Board of Trustees has continued the policy previously adopted, viz:—

- (1) Assistance (in special cases) in the education of the dependents of ex-service men.
- (2) Assistance in urgent cases among ex-service men, their widows, orphans and dependents resulting from sickness, operations, etc.

At the end of June, 1929, the arrangements for carrying on the investigation work were changed and a separate investigation office was established by the trustees. The result has been found satisfactory. Certain expenditures for equipment, etc., made necessary by the change, should not be repeated during the life of the fund.

As a consequence of the prevalence of unemployment it was necessary to relieve many cases of great distress. In giving this relief the trustees have kept in mind the fact that a job is worth more than monetary assistance, and their investigator has in many cases been successful in securing work for these men and thus re-establishing them on an economic basis.

The educational work of the fund continues to meet a very real need. All deserving and promising cases are being helped as far as possible, at the university, in business colleges and high schools in preparation for their life work, and the results are highly satisfactory.

The following is a statement of account:—

Investments, April 1, 1929.....	\$ 224,445 76	Relief.....	\$ 18,061 17
Loans outstanding, April 1, 1929.....	161 93	Education.....	2,947 38
Furniture, April 1, 1929.....	1 00	Loans written off.....	212 69
Cash in hand, April 1, 1929.....	1,477 24	Furniture.....	302 04
Interest.....	9,468 91	Administration.....	4,614 66
Profit on sale of securities.....	516 06	Cash in hand 31-3-30.....	274 15
Cash received.....	2,130 80	Investments 31-3-30.....	211,789 61
	<u>\$ 238,201 70</u>		<u>\$ 238,201 70</u>

PRINCE EDWARD ISLAND

Trustees:

Major E. H. Strong, M.C., Chairman;
Major Dan. F. Tierney;
Capt. Wm. A. McLaren.

The Prince Edward Island Board of Trustees reports that assistance has been rendered, in accordance with the provisions of the Act, to ex-members of the forces and their dependents, for relief in cases of distress.

The amount shown in the statement, namely \$15,500, which forms the assets of the fund, is on deposit with the provincial Government and by arrangement with the provincial treasurer the required amounts are withdrawn from time to time and deposited in the bank, a new deposit receipt being issued to the board after every withdrawal.

The following is a statement of receipts and expenditures:—

Investments, 1-4-29.....	\$ 16,500 00	Relief.....	\$ 2,104 00
Cash on hand 1-4-29.....	537 22	Administration.....	79 58
Interest.....	1,186 54	Cash on hand 31-3-30.....	687 98
Amount received.....	147 80	Investments 31-3-30.....	15,500 00
	<u>\$ 18,371 56</u>		<u>\$ 18,371 56</u>

SASKATCHEWAN

Trustees:

Capt. A. H. White, Chairman;
Dr. Charles G. Cox;
Lt.-Col. James McAra.

During the fiscal year under review the Saskatchewan Canteen Fund Board has followed the previous policy of giving financial assistance either in the nature of loans or grants, each case being thoroughly investigated.

A considerable amount has been donated along educational lines, making it possible for soldiers' dependents to receive commercial courses and high school education which otherwise could not have been undertaken.

It has become evident that as the time goes on the demands on the fund will be considerably increased due to ex-soldiers who, while at present in apparent good health, may find themselves "burnt out" at any time. The trustees therefore feel that it is important that the fund should be conserved as far as possible to meet such conditions in the future without, however, neglecting at the present time those cases which after investigation are found to be deserving of assistance.

The trustees wish to express their appreciation of the co-operation they have received from the Saskatchewan Division of the Canadian Red Cross and Saskatchewan Command of the Canadian Legion of the B.E.S.L.

The following is a statement of receipts and expenditures:—

OVERSEAS FUND		
Investments 1-4-29.....	\$ 161,016 38	
Cash on hand 1-4-29.....	604 35	
Loans outstanding 1-4-29.....	1,644 01	
Suspense account 1-4-29.....	26 00	
Interest.....	7,745 88	
Additional Trust Fund.....	1,432 40	
Relief.....		\$ 14,131 23
Loans written off.....		3,015 01
Suspense account.....		50 00
Loss on sale of bonds.....		27 60
Administration.....		1,117 88
Due from Canada Fund.....		1,603 67
Cash on hand.....		2,014 45
Investments.....		150,509 18
	<u>\$ 172,469 02</u>	<u>\$ 172,469 02</u>

CANADA FUND		
Investments 1-4-29.....	\$ 7,681 43	
Cash on hand 1-4-29.....	1,187 89	
Interest.....	\$ 443 15	
Less accrued.....	73 10	
	<u>370 05</u>	
Due Overseas Fund.....	1,603 67	
Relief.....		1,450 00
Cash on hand.....		1,784 71
Investments.....		7,608 33
	<u>\$ 10,843 04</u>	<u>\$ 10,843 04</u>

YUKON TERRITORY

Trustees:

Mr. G. I. MacLean, Chairman;

Mr. Hamilton Daglish;

Mr. John F. MacLennan.

The fund is used for the relief of ex-service men or their dependents whose cases are specially deserving but who are not eligible for assistance from other sources. Each case is dealt with on its individual merits.

The following is a statement of receipts and expenditures:—

Investments 1-4-29.....	\$ 3,573 50	Loans—less repayment.....	\$ 1,890 65
Balance on hand 1-4-29.....	886 59	Balance on hand.....	2,096 31
Loans outstanding 1-4-29.....	2,785 30	Investments at cost.....	3,573 50
Canada Fund 1-4-29.....	53 80		
Interest.....	261 27		
	<u>\$ 7,560 46</u>		<u>\$ 7,560 46</u>

UNITED KINGDOM

The Canteen Fund in Great Britain is administered by the United Services Fund in accordance with the regulations under which the British Canteen Fund operates.

A considerable number of deserving cases were looked after and assisted through this fund, in matters pertaining principally to children's education, hospital maintenance and care of convalescing children of Canadian ex-service men in the United Kingdom.

The following is a statement of receipts and expenditures:—

1929			
April 1—Balance available—			
(As per third annual return).....	£	s.	d.
	8,727	0	1
1930			
March 31—Deduct—			
Amount distributed in grants for relief of Canadian ex-service men for year to date.....	902	9	9
Add—			
Interest allowed.....	7,824	10	4
	181	17	0
Balance available.....	<u>8,006</u>	<u>7</u>	<u>4</u>

UNITED STATES

The Canteen Fund in the United States is administered by the American Red Cross.

Only the ex-members of the Canadian Expeditionary Forces who served in France or England, or the Royal Canadian Navy overseas may be assisted from this fund.

This assistance is given by means of grants and loans which are made by the different chapters of the American Red Cross.

The chapter's own funds are used in all transactions. Chapters are reimbursed immediately for grants made. Loans are usually carried by chapters for about six months before being presented as uncollectable. If at the end of that time the chapter's efforts to collect from the beneficiary have failed, reimbursement may be sought from the Canteen Fund through National Headquarters. However, if the veteran has repaid even a small part, or shown evidence of a desire to do so, he is given an extension of time and the chapter withholds request for reimbursement from the fund.

National Headquarters continues to retain absolute control of the fund by reserving the right to disallow reimbursement of any loan or grant made to an applicant who does not fully meet the eligibility requirements. Chapters are instructed to verify a man's service and otherwise establish his eligibility before advancing any material assistance from the fund. If money is advanced to an ineligible applicant, the expense of the loan or grant is met from the chapter's own funds.

A comparison with last year's report shows that there has been a considerable increase (22) in the number of cases reported from the Eastern area during these twelve months, and a somewhat larger decrease (28) in the number from the Pacific area. The number of cases in the Midwestern area has remained practically the same—one less having been reported than during the previous twelve months.

The following is a report showing the status of the fund since the last report:—

Balance in fund 31-3-29.....	\$ 43,500 91	Uncollectible loans, 1-4-29 to 31-3-30\$	983 87
Interest 1-4-29 to 31-3-30.....	1,816 42	Grants 1-4-29 to 31-3-30.....	5,110 17
		Balance in fund, 31-3-30.....	39,223 29
	<u>\$ 45,317 33</u>		<u>\$ 45,317 33</u>

IMPERIAL CANTEEN FUND

Trustees:

Colonel G. E. Sanders, C.M.G., D.S.O., Calgary;

Lt.-Col. A. A. Magee, D.S.O., Montreal;

Lt.-Colonel B. O. Hooper, M.C., D.S.O., Toronto.

The Imperial Canteen Fund has been of considerable service to a number of Imperial ex-service men during the fiscal year 1929-30. The trustees have freely devoted a large amount of time to its administration.

The following is a statement of account:—

Investments at 1-4-29.....	\$ 10,096 63		
Balance on hand at 1-4-29.....	5,015 03		
Loans outstanding at 1-4-29.....	5,462 30		
Interest.....	559 46		
Loans written off as uncollectible.....		\$ 7,573 30	
Grants.....		6,128 13	
Administration.....		311 23	
Balance on hand.....		4,091 77	
Investments at cost as at 31-3-30.....		3,028 99	
	<u>\$ 21,133 42</u>	<u>\$ 21,133 42</u>	

BOARD OF PENSION COMMISSIONERS FOR CANADA

Colonel the Hon. MURRAY MacLAREN, C.M.G., M.P.,
Minister of Pensions and National Health,
Ottawa, Canada.

SIR,—Pursuant to the provisions of section 4 (2) of chapter 157, Revised Statutes of Canada, as amended by chapter 18-19 George V, I have the honour to submit a report of the work of the Board of Pension Commissioners for the fiscal year ending March 31, 1930.

Your obedient servant,

W. E. DEXTER,
for Secretary.

OTTAWA, October 16, 1930.

STATISTICAL REVIEW

LEGISLATION

No new pension legislation was enacted during the fiscal year ending March 31, 1930.

BENEFICIARIES

There was a slight decrease in the number of dependent pensions awarded during the period under review, whereas disability awards increased by 2,376. The number of disability and dependent pensions in force as at March 31, 1930, was as follows:—

Disability.....	56,996
Dependent.....	19,644
Total.....	<u>76,640</u>

The total number of persons receiving benefits under the Pension Act as at March 31, 1930, was 202,842, representing an increase of 7,600 over the total for the preceding fiscal year.

LIABILITY

The total liability in respect of pensions under the Pension Act for the fiscal year ending March 31, 1930, was \$37,802,510, which is an increase of \$617,202 over the liability for the preceding fiscal year.

MEDICAL EXAMINATIONS

The number of medical examinations for pension purposes carried out during the fiscal year was 25,697, as compared with 26,881 for the preceding fiscal year.

Detailed information of the board's activities and expenditure in connection therewith will be found in the statistics appended as compiled by the Department of Pensions and National Health.

STATISTICS

(As compiled by the Department of Pensions and National Health)

SUMMARY OF PENSION ACTIVITIES DURING THE FISCAL YEAR ENDING MARCH 31, 1930

DISABILITIES	
Disability pensions in force March 31, 1929.....	54,572
Disability pensions awarded during the fiscal year ending March 31, 1930.....	1,774
Disability pensions reinstated during the fiscal year ending March 31, 1930.....	1,603
Total.....	<u>57,949</u>
Disability pensions discontinued during the fiscal year ending March 31, 1930....	953
Total number of pensions in force March 31, 1930.....	<u>56,996</u>

DEPARTMENT OF PENSIONS AND NATIONAL HEALTH

DEPENDENTS

Dependent pensions in force March 31, 1929.....	20,014
Dependent pensions awarded during the fiscal year ending March 31, 1930.....	584
Dependent pensions reinstated during fiscal year ending March 31, 1930.....	104
Total.....	20,702
Dependent pensions discontinued during the fiscal year ending March 31, 1930....	1,058
Total number of pensions in force March 31, 1930.....	19,644

DISABILITIES AND DEPENDENTS

Total pensions in force March 31, 1929.....	74,586
Total pensions awarded during the fiscal year ending March 31, 1930.....	2,358
Total pensions reinstated during the fiscal year ending March 31, 1930.....	1,707
Total.....	78,651
Total pensions discontinued during the fiscal year ending March 31, 1930.....	2,011
Total number of pensions in force March 31, 1930.....	76,640

STATEMENT OF PENSION ACTIVITIES DURING THE FISCAL YEAR ENDING
MARCH 31, 1930

	Number	Annual Liability
		\$ cts.
Pensions awarded—		
Disabilities.....	1,774	352,849 00
Dependents.....	584	271,580 00
Total.....	2,358	624,429 00
Pensions reinstated—		
Disabilities.....	1,603	313,014 00
Dependents.....	104	23,514 00
Total.....	1,707	336,528 00
Pensions discontinued—		
Disabilities.....	953	557,566 00
Dependents.....	1,058	330,226 00
Totals.....	2,011	887,792 00
Final payments (gratuity) on award and amount thereof.....	319	24,850 00
Additional gratuities awarded.....	38	2,175 00
Gratuities awarded subsequent to discontinuation of pension.....	38	2,725 00
*Total.....	395	29,750 00
Pensions refused—		
(1) Number of injuries or diseases.....	13,919	
(a) Number of applicants <i>re</i> above.....	8,811	
(2) Dependents.....	1,321	
Additional or other allowances refused—		
Dependent and disability pensioners.....	285	
FEDERAL APPEAL BOARD		
Awards in force resulting from judgments of F.A.B. (included above).....	406	150,709 00
*Gratuities awarded resulting from judgments of F.A.B. (included above).....	10	625 00

*Does not form part of annual liability.

COMPARATIVE STATEMENT SHOWING PENSIONS IN FORCE UNDER THE PENSION ACT AS AT THE END OF THE FISCAL YEARS 1918 TO 1930

Year ending March 31	Pensions in force	Liability
		\$ cts.
Dependents—		
1918.....	10,488	4,168,602 00
1919.....	16,753	9,593,055 50
1920.....	17,823	10,841,169 50
1921.....	19,209	12,954,140 54
1922.....	19,606	12,687,237 00
1923.....	19,794	12,279,621 00
1924.....	19,971	12,037,843 00
1925.....	20,015	11,804,825 00
1926.....	20,005	11,608,530 00
1927.....	19,999	11,419,276 00
1928.....	19,975	11,209,351 00
1929.....	20,002	11,090,158 00
1930.....	19,644	10,742,518 00
Disabilities—		
1918.....	15,335	3,105,125 55
1919.....	42,932	7,470,729 02
1920.....	69,203	14,335,118 41
1921.....	51,452	18,230,697 16
1922.....	45,133	17,991,535 00
1923.....	43,263	18,142,145 00
1924.....	43,300	18,787,206 00
1925.....	44,598	19,816,380 00
1926.....	46,385	21,456,941 00
1927.....	48,027	22,811,373 00
1928.....	50,635	24,374,502 00
1929.....	54,620	26,095,150 00
1930.....	56,996	27,059,992 00
Totals—		
1918.....	25,823	7,273,727 55
1919.....	59,685	17,063,784 52
1920.....	87,026	25,176,287 91
1921.....	70,661	31,184,837 70
1922.....	64,739	30,678,772 00
1923.....	63,057	30,421,766 00
1924.....	63,271	30,825,049 00
1925.....	64,613	31,621,205 00
1926.....	66,390	33,065,471 00
1927.....	68,026	34,230,649 00
1928.....	70,610	35,583,853 00
1929.....	74,622	37,185,308 00
1930.....	76,640	37,802,510 00

STATEMENT GIVING THE DOMICILIARY DETAIL AND ANNUAL LIABILITY OF PENSIONERS AS AT MARCH 31, 1930

Resident in	Disabilities			Dependents			Total		
	No.	Per-centage	Annual Liability	No.	Per-centage	Annual Liability	No.	Per-centage	Annual Liability
Quebec.....	3,956	6.9	\$ 1,910,254	1,544	7.9	\$ 894,736	5,500	7.2	\$ 2,804,990
Nova Scotia and Prince Edward Island.....	3,304	5.7	1,580,257	1,271	6.5	642,197	4,575	6.0	2,222,454
Eastern Ontario.....	3,401	6.0	1,554,482	989	5.0	577,870	4,390	5.7	2,132,352
Central Ontario.....	11,456	20.0	5,640,047	4,077	20.8	2,466,597	15,533	20.3	8,106,644
Western Ontario.....	3,739	6.6	1,931,970	929	4.7	538,762	4,668	6.1	2,470,732
Manitoba.....	5,581	9.8	2,447,089	1,252	6.4	725,568	6,833	8.9	3,172,657
Saskatchewan.....	3,478	6.1	1,557,149	554	2.8	296,700	4,032	5.3	1,853,909
Alberta.....	4,495	7.9	2,058,218	808	4.1	468,259	5,303	6.9	2,526,477
British Columbia.....	7,067	12.4	3,327,005	1,695	8.6	1,083,806	8,762	11.4	4,410,811
New Brunswick.....	1,668	2.9	817,874	367	3.5	350,588	2,355	3.1	1,168,462
Great Britain.....	3,162	5.7	1,746,951	864	20.2	1,754,747	7,126	9.3	3,501,698
United States.....	5,263	9.3	2,282,720	1,586	8.1	826,940	6,849	8.9	3,109,660
*Other Countries.....	426	0.7	205,976	288	1.4	115,688	714	0.9	321,664
Total.....	56,996	100	27,059,992	19,644	100	10,742,518	76,640	100	37,802,510
*Pensioners residing in other countries are as follows—									
Africa.....	28	East Indies.....	..	Iceland.....	4	Poland.....	3		
Australia.....	120	Egypt.....	3	India.....	5	Roumania.....	2		
Belgium.....	43	Finland.....	1	Italy.....	31	Russia.....	16		
Bermuda.....	13	France.....	59	Java.....	27	Serbia.....	4		
British West Indies.....	43	Germany.....	1	Japan.....	9	South America.....	13		
Central America.....	1	Greece.....	10	Mexico.....	8	Spain.....	1		
China.....	3	Hawaiian Islands (Pacific).....	15	Montenegro.....	8	Strait Settlements.....	1		
Czecho-Slovakia.....	1	Holland.....	5	Newfoundland.....	95	Sweden.....	13		
Danzig, International Territory.....	1	Hungary.....	1	New Zealand.....	55	Turkey.....	1		
Denmark.....	12	Lithuania.....	1	Switzerland.....	4				
		Norway.....	9	Islands contiguous to Great Britain.....	52	Total.....	714		

DISABILITY PENSIONS

STATEMENT SHOWING THE NUMBER OF PERMANENT DISABILITY PENSIONS IN FORCE AS AT MARCH 31, 1930

Resident in	Total number of pensions	Number of pensions permanent	Percentage of pensions permanent
Quebec.....	3,956	1,370	34.3
Nova Scotia and Prince Edward Island.....	3,304	1,148	34.5
Eastern Ontario.....	3,401	1,093	32.3
Central Ontario.....	11,456	4,205	36.0
Western Ontario.....	3,739	1,420	37.8
Manitoba.....	5,581	2,039	36.3
Saskatchewan.....	3,478	1,337	38.4
Alberta.....	4,495	1,679	37.5
British Columbia.....	7,067	2,558	36.9
New Brunswick.....	1,668	557	33.9
Great Britain.....	3,162	1,498	47.7
United States.....	5,263	2,292	43.4
Other Countries.....	426	214	50.3
Total.....	56,996	21,410	37.6

DISABILITIES

STATEMENT SHOWING COUNTRY WHERE PENSIONABLE DISABILITY ORIGINATED

	Number	Percentage	Liability
			\$
France.....	49,318	86.4	23,423,605
England.....	5,040	8.5	2,317,907
Canada.....	2,315	4.6	1,160,999
Other theatres of war.....	323	0.5	157,481
Total.....	56,996	100	27,059,992

DEPENDENTS

STATEMENT SHOWING THEATRE OF WAR WHERE DECEASED SOLDIER SERVED, NUMBER AND ANNUAL LIABILITY OF DEPENDENT PENSIONS IN FORCE ON HIS BEHALF AS AT MARCH, 1930.

Theatre of War	Number	Percentage	Liability
			\$
France.....	17,334	88.4	9,293,427
England.....	1,185	6.3	739,491
Canada.....	983	5.0	628,368
Other theatres of war.....	142	0.3	81,232
Total.....	19,644	100	10,742,518

DEPARTMENT OF PENSIONS AND NATIONAL HEALTH

STATEMENT SHOWING THE NUMBER OF DISABILITY PENSIONS IN FORCE AS AT MARCH 31, 1930, CLASSIFIED UNDER SCHEDULE "A" OF THE PENSION ACT, ALSO INDICATING COUNTRY WHERE PENSIONABLE DISABILITY ORIGINATED.

Class	Country of Origin				Degree of disability	Number of pensions	Annual liability
	France	England	Canada	Other theatres of war			
							\$
1.....	3,396	454	266	43	100	4,159	5,530,083
2.....	43	1	1	.....	95	45	60,063
3.....	247	79	38	1	90	365	445,512
4.....	183	11	5	.....	85	199	236,314
5.....	1,154	106	65	6	80	1,331	1,429,682
6.....	1,263	82	43	3	75	1,391	1,421,933
7.....	1,270	73	37	5	70	1,385	1,339,765
8.....	507	24	9	.....	65	540	479,490
9.....	1,861	176	58	16	60	2,111	1,703,708
10.....	284	20	14	1	55	319	236,328
11.....	3,314	336	166	18	50	3,834	2,583,750
12.....	703	39	16	3	45	761	462,184
13.....	3,487	313	146	18	40	3,964	2,136,169
14.....	1,421	119	48	9	35	1,597	757,746
15.....	3,819	366	151	22	30	4,358	1,769,292
16.....	4,041	441	189	24	25	4,695	1,573,879
17.....	6,862	701	285	34	20	7,882	2,118,029
18.....	7,288	718	329	58	15	8,393	1,689,012
19.....	5,407	637	288	40	10	6,372	862,423
20.....	2,768	344	161	22	5	3,295	224,630
Totals.....	49,318	5,040	2,315	323	.....	56,996	27,059,992

STATEMENT SHOWING THE NUMBER AND ANNUAL LIABILITY OF DISABILITY PENSIONS IN FORCE AS AT MARCH 31, 1930, GROUPED UNDER MEDICAL NOMENCLATURE, WITH THE RELATIVE PERCENTAGE OF EACH GROUP TO THE WHOLE, AND THE NUMBER OF INJURIES OR DISEASES CAUSING DISABILITY FOR WHICH PENSION IS BEING PAID.

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STATEMENT SHOWING THE NUMBER AND ANNUAL LIABILITY OF DISABILITY PENSIONS IN FORCE AS AT MARCH 31, 1930, GROUPED UNDER MEDICAL NOMENCLATURE, WITH THE RELATIVE PERCENTAGE OF EACH GROUP TO THE WHOLE, AND THE NUMBER OF INJURIES OR DISEASES CAUSING DISABILITY FOR WHICH PENSION IS BEING PAID.—*Concluded*

Medical Nomenclature and Groups	Temporary		Permanent		Total Pensions	Number Injuries or Diseases	Annual Liability		
	No.	Per-centage	No.	Per-centage			Temporary	Permanent	Total
							\$	\$	\$
GASTRO INTESTINAL SYSTEM.....	1,618	4.5	341	1.5	1,959	3,460	606,139	72,835	678,974
Appendicitis and Peritonitis									
Gastric ulcer and Duodenal Ulcer									
Cirrhosis of liver, etc.									
URINARY AND GENITAL....	1,289	3.6	99	0.5	1,388	2,233	579,985	36,046	616,031
Nephritis									
Nephrolithiasis and Pyelitis									
Hydronephrosis, etc.									
AMPUTATION AND DISARTICULATIONS.....	238	0.7	3,173	14.9	3,411	4,462	226,367	2,852,409	3,078,776
Shoulder									
Arm									
Hip									
Knee, etc.									
G.S.W.'s AND INJURIES TO JOINTS.....	1,428	4.1	2,600	12.2	4,028	5,809	515,313	916,590	1,431,903
Shoulder									
Elbow									
Hip									
Ankle, etc.									
G.S.W.'s, INJURIES, FRACTURES.....	4,363	12.3	11,443	53.5	15,806	21,331	1,918,580	4,249,927	6,168,507
Skull									
Humerus									
Femur, etc.									
GENERAL DISEASES AND INJURIES.....	994	2.8	557	2.7	1,551	3,834	275,138	111,061	386,199
Brain Tumors									
Disfigurement									
Flat Feet									
Malaria									
Raynaud's Disease, etc.									
VENEREAL DISEASES SEQUELAE.....	71	0.3	74	0.5	145	202	32,298	26,718	59,016
Locomotor Ataxia									
General Paresis of Insane									
Gonorrhoeal Arthritis, etc.									
Total.....	35,586	100	21,410	100	56,996	85,150	17,288,138	9,771,854	27,059,992

DISABILITY PENSIONS IN FORCE AS AT MARCH 31, 1930

CONSOLIDATED STATEMENT BY RANK ON DISCHARGE FROM C.E.F.

* Rank	Ex-soldiers	Percentage	Amount	Percentage
			\$	
Private.....	48,193	84.57	22,840,191	84.41
Sergeant.....	5,128	8.98	2,394,734	8.85
R.S.M.....	225	0.39	99,800	0.37
W.O.....	148	0.26	59,003	0.22
Lieutenant.....	1,687	2.96	784,457	2.89
Captain.....	828	1.45	430,920	1.59
Major.....	342	0.60	208,099	0.76
Lt. Colonel.....	118	0.21	94,543	0.35
Colonel.....	7	0.01	7,403	0.03
Brig. General and upwards.....	7	0.01	10,440	0.04
Nurses—Lieutenant.....	311	0.55	128,989	0.48
Nurses—Captain.....	2	0.01	1,413	0.01
Total.....	56,996	100	27,059,992	100

STATEMENT SHOWING THE TOTAL NUMBER OF PERSONS IN RECEIPT OF BENEFITS
UNDER THE PENSION ACT AS AT MARCH 31, 1930

	Number	Total
Disability pensioners.....	56,996	
Disability pensioners' wives.....	42,306	
Disability pensioners' children.....	73,810	
Disability pensioners' other relatives.....	1,441	
Disability pensioners' (widowers, section 22-9 Pension Act).....	179	
		<u>174,732</u>
Dependent pensioners.....	19,644	
Dependent pensioners' children.....	6,400	
Other relatives in addition to main dependents.....	1,647	
		<u>27,691</u>

SUPPLEMENTARY AWARDS

DISABILITY

Militia Pension Act (sections 48 and 49 Pension Act).....	31	
Supplementary to awards paid by Great Britain (sections 45 and 47 Pension Act).....	273	
R.N.W.M. Police Supplementary (section 48 Pension Act).....	3	
		<u>307</u>

DEPENDENT

Militia Pension Act (Sections 48 and 49 Pension Act).....	7	
Supplementary to awards paid by Great Britain (Sections 46 and 47 Pension Act).....	66	
Supplementary to awards paid by Belgium (Section 46 Pension Act).....	1	
Supplementary to awards paid by France (Section 46 Pension Act).....	35	
Supplementary to awards paid by Italy (Section 46 Pension Act).....	3	
		<u>112</u>
Grand Total.....		<u>202,842</u>

MISCELLANEOUS PENSIONS

Pension Act, 1901.....	1,047	
Pension Act (1885 and General).....	69	
Order in Council P.C. 2187.....	1	
R.N.W.M.P.....	3	
Total.....	<u>1,120</u>	

*ANNUITIES IN RESPECT OF DECORATIONS AWARDED TO CANADIANS IN THE GREAT AND
OTHER WARS

Victoria Cross (5 in receipt of both pension and annuity).....	16	
Military Cross or Distinguished Conduct Medal (in receipt of both pension and annuity).....	290	
Total.....	<u>306</u>	

*These Annuities are paid by Great Britain.

DEPENDENT PENSIONERS

STATEMENT SHOWING THE NUMBER OF DEPENDENT PENSIONERS, RELATIONSHIP AND ANNUAL LIABILITY IN RESPECT THERETO AS AT MARCH 31, 1930

Relationship to deceased soldier	Number of pensions	Annual liability
		\$
Widow.....	7,831	6,575,546
Mother.....	5,870	2,334,834
Father.....	870	249,500
Orphan children.....	401	181,752
Grandparents.....	22	7,610
Brothers and sisters.....	50	13,980
Orphan brothers and sisters.....	9	2,400
Other relatives.....	10	7,524
Children.....	3,086	851,464
Parents (J).....	1,495	517,908
Total.....	19,644	10,742,518

STATEMENT SHOWING THE NUMBER OF DEPENDENTS OF DISABILITY PENSIONERS ON WHOSE ACCOUNT ALLOWANCES ARE BEING PAID AS AT MARCH 31, 1930

Wives.....	42,306
Children.....	73,810
Mothers.....	1,119
Fathers.....	164
Parents.....	154
Other relatives.....	4
Widowers (section 22 (9) Pension Act).....	179
Total.....	117,736

In addition to the foregoing allowances are being paid to disability pensioners under section 26 of the Pension Act, in respect of the following:—

Helplessness.....	321
Wear and tear of clothing (section 26 (3 and 4) Pension Act).....	3,944

DEPENDENT PENSIONERS

STATEMENT SHOWING THE NUMBER OF WIDOWS WITH PENSIONABLE CHILDREN AS AT MARCH 31, 1930

Number in family	Families	Total number of children
1.....	2,348	2,348
2.....	834	1,668
3.....	187	561
4.....	65	260
5.....	33	165
6.....	15	90
7.....	1	7
8.....	3	24
9.....	1	9
Total.....	3,487	5,132

Number of widows with pensionable children..... 3,487
 Number of widows without pensionable children..... 4,344

Total..... 7,831

Percentage of widows with pensionable children..... 44.3
 Percentage of widows without pensionable children..... 55.7

DEPENDENT CHILDREN

Children only (widows also on pension)..... 5,132
 Children only (pensioned in own right)..... 4,213
 Children orphan (pensioned in own right)..... 535
 Children only (with other dependent pensioners)..... 7

Total..... 9,887

DEPARTMENT OF PENSIONS AND NATIONAL HEALTH

STATEMENT SHOWING THE NUMBER OF PENSIONS DISCONTINUED OR CANCELLED,
AND REASONS THEREFOR, DURING THE FISCAL YEAR ENDING MARCH 31, 1930

DISABILITIES		Number	Total
Death.....		723	
Disappearance of disability.....		80	
Under section 5 Pension Act (unclaimed).....		55	
Imprisonment (section 17 Pension Act).....		13	
Gratuities (disability less than 5%).....		10	
Final payment by agreement.....		60	
Miscellaneous.....		12	
			953
DEPENDENTS			
Misconduct section 39 Pension Act.....		4	
Under Section 33 Pension Act.....		130	
Under Section 5 Pens. Act. (Unclaimed).....		2	
Widows re-married.....		46	
Mothers re-married.....		7	
Marriage of sister.....		2	
Orphan child married.....		4	
On youngest child attaining age limit.....		328	
Adoption of child.....		1	
Pensioner died.....		430	
On brother or sister attaining age limit.....		3	
On orphan child attaining age limit.....		96	
Miscellaneous.....		5	
			1,058
Total.....			2,011

In addition to this total 72 widows' pensions were discontinued on remarriage and 5 widows' for misconduct in cases where pensions for children were continued.

MISCELLANEOUS STATISTICS

STATEMENT SHOWING THE NUMBER OF DEATHS DURING THE FISCAL YEAR
ENDING MARCH 31, 1930, OF PENSIONERS AND THOSE ON WHOSE BEHALF ALLOW-
ANCES WERE BEING PAID

DISABILITIES		Number	Total
Pensioners died—			
Death related to service.....		340	
Death not related to service.....		361	
Death, relationship to service (not decided).....		22	
Wives of pensioners died.....		269	
Children of pensioners died.....		285	
Other relatives receiving allowances died—mothers.....		59	
fathers.....		24	
			1,360
DEPENDENTS			
Widows.....		67	
Mothers.....		342	
Fathers.....		175	
Grandparents.....		9	
Children.....		33	
Brothers and sisters.....		1	
			627
Grand total.....			1,987

Additional and other allowances discontinued during the fiscal year ending March 31, 1930, by reason of children reaching the expiry age limit for children, viz., 16 for boys and 17 for girls.

Children of disability pensioners.....	2,800
Children in own right and children of dependent pensioners.....	2,182
Brothers and sisters and other relatives.....	5
Total.....	4,987

DEPENDENTS

BONUS TO CHILDREN OF DECEASED PENSIONERS UNDER SECTION 22-8 PENSION ACT DURING THE FISCAL YEAR ENDING MARCH 31, 1930

Number of children—285

Amount of Bonus—\$12,435.00.

One month's pension to dependents on death of a disability pensioner with 50 to 100 per cent disability, as provided by section 38—Pension Act (1924 Amendment).

Relationship and number affected	Amount
Widows..... 245	
Children..... 325	
Total..... 570	\$ 19,718 00

MARRIAGES

DURING THE FISCAL YEAR ENDING MARCH 31, 1930

Disability pensioners (allowance for wife granted).....	1,997
Widows remarried—Pensions for children continued.....	72
Widows remarried—with no pensionable children.....	46
Mothers remarried.....	9
Children.....	22
Total.....	2,146

DISABILITY PENSIONERS

STATEMENT SHOWING THE NUMBER OF PENSIONS DISCONTINUED, FINAL PAYMENT BY AGREEMENT, SHOWING CLASSIFICATION OF ALLOWANCES AND NUMBER AFFECTED THEREBY, DURING THE FISCAL YEAR ENDING MARCH 31, 1930.

	Number	Allowances affected	Reduction in amount of yearly liability
			\$ cts.
By agreement.....	60	Wives..... 22 Children..... 28 Mother..... 1	5,034 00

STATEMENT SHOWING THE NUMBER OF DISABILITY PENSIONS CANCELLED, CLASSIFICATION AND NUMBER OF ALLOWANCES AFFECTED THEREBY DURING THE FISCAL YEAR ENDING MARCH 31, 1930.

	Number of pensions	Number of allowances
Pensions.....	953	
Wives.....		594
Children.....		819
Fathers.....		6
Mothers.....		26
Widowers' allowance.....		3
Helplessness.....		9
Wear and tear of clothing.....		27
Total.....	953	1,484

ALLOWANCES FOR WEAR AND TEAR OF CLOTHING AS PROVIDED BY 1925 AMENDMENT (SECTION 26) TO PENSION ACT, AND INCREASE IN ANNUAL LIABILITY.

Number	Increased liability
100.....	\$ 4,775 00

NUMBER OF PENSIONERS RECEIVING TREATMENT UNDER THE DEPARTMENT OF PENSIONS AND NATIONAL HEALTH AS AT MARCH 31, 1930

	Number	Total
Pensioners.....	1,868	
Final payments.....	178	
Gratuities—first awards.....	44	
Discontinued with gratuity.....	55	
Discontinued—disappearance of disability.....	140	
Discontinued classified insane.....	201	2,486

Number of medical examinations for pension purposes carried out during the fiscal year ending March 31, 1930..... 25,697

CHANGES, RE-INSTATEMENTS AND DISCONTINUATIONS FOLLOWING REVIEW UNDER SECTION 33 OF THE PENSION ACT, FOR THE FISCAL YEAR ENDING MARCH 31, 1930.

Relationship to soldier	Number of re-instate-ments	Number discon-tinued	Number of changes	Totals
Mothers.....	9	36	523	568
Fathers.....	9	27	47	83
Parents.....	29	66	125	220
Others.....		1	2	3
Totals.....	47	130	697	874

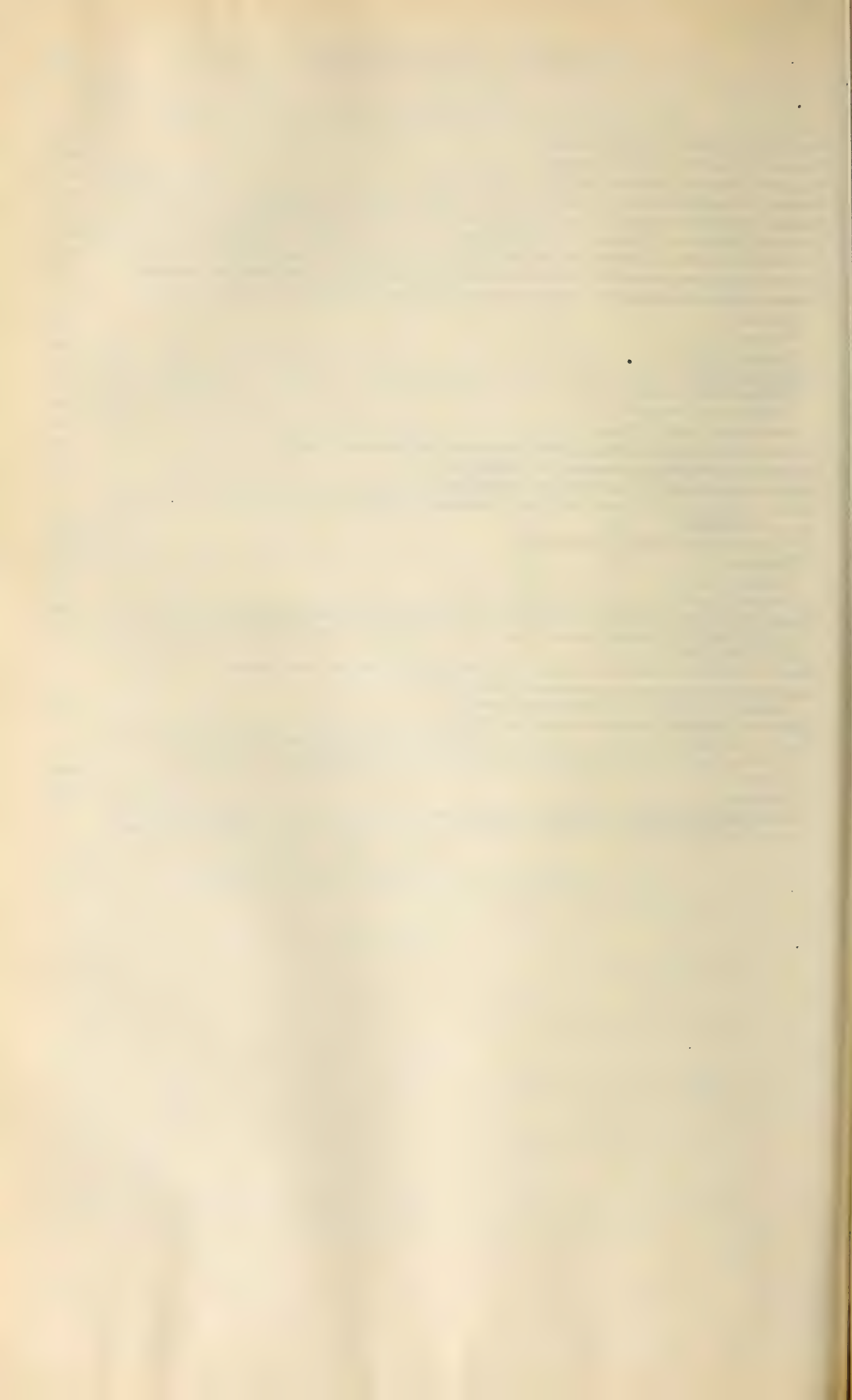
OTHER ACTIVITIES

DEPENDENTS

Number of dependent pensioners awarded increase by addition of other allowances—	
Mothers.....	7
Parents (jointly).....	1
Number of reinstatements of remarried widows' pension (under Section 40-2 of the Pension Act, 1924 amendment).....	
(a) Pension in force to dependents other than widows.....	4
Number of widows' pensions discontinued for misconduct, section 39, Pension Act—	
(a) When pension is continued on behalf of children or other dependents.....	5
Number of widows' pensions reinstated after being discontinued for misconduct, Section 39, Pension Act—	
(a) Where pension is in force to dependent children or other dependents.....	1
(b) Where pension has been previously discontinued.....	4
Number of children of dependent pensioners or dependents' children awarded increase or decrease in pension rate.....	86
Number of dependent pensioners with allowances for children added.....	7
Number of dependent children or children of dependent pensioners continued after attaining age limit.....	329
Number of dependent pensions—Basis of award changed.....	3
Number of children of dependent pensioners cancelled for reasons other than death or age expiry...	5
Number of dependent pensioners' children re-instated previously cancelled for reasons other than death or age expiry.....	1
Number of deceased widows' pensions continued to daughter (Section 22-10 Pension Act, 1928 amendments).....	5
Number of dependent pensions awarded to widows—1928 amendments—	
Section 32-1a.....	7
32-1b.....	18
Number of awards made by Governor General in Council on recommendation of Special Tribunal under Section 21, Pension Act, Meritorious Clause.....	6

DISABILITY

Number of disability pensions increased.....	3,723
Number of disability pensions decreased	745
Number of disability pensions continued at same rate.....	12,821
Number of disability pensions made permanent on award and by medical review.....	1,423
Number of permanent disability pensions changed to temporary on medical review.....	265
Number of children of disability pensioners added.....	6,241
Number of disability pensioners with allowances for wife cancelled for reasons other than death...	185
Number of children of disability pensioners cancelled for reasons other than death or age expiry..	124
Number of disability pensioners awarded increase by addition of other allowances—	
Mothers.....	223
Fathers.....	68
Parents jointly.....	18
Sister or brother.....	1
Helplessness.....	11
(Section 22 (9) Pension Act).....	68
(Section 26 (3 and 4) Pension Act).....	108
Number of disability pensioners awarded increase in helplessness allowance.....	2
Number of helplessness allowances discontinued.....	2
Number of allowances for wear and tear of clothing cancelled.....	8
Number of disability pensioners additional allowances discontinued for reasons other than death or marriage—	
Widowers (Section 22 (9) Pension Act).....	32
Mothers.....	42
Fathers.....	12
Parents (jointly).....	4
Number of pensions for children of disability pensioners continued after age limit.....	140
Number of disability pensions reduced 50 per cent for unreasonable refusal of treatment (Section 28, Pension Act).....	5
Number of disability pensions increased to full pension after acceptance of treatment.....	7
Number of disability pensions increased to full pension— (Section 28-1 Pension Act, 1928 amendments).....	8
Number of disability pensions—basis of award changed.....	670
Number of disability pensioners' allowances reinstated—previously cancelled for reasons other than death or age expiry, including those not previously reinstated with pensioner—	
Wives.....	628
Children.....	1,026
Number of awards made by Governor General in Council on recommendation of Special Tribunal under Section 21 Pension Act Meritorious Clause.....	1



THE FEDERAL APPEAL BOARD

OTTAWA, September 30, 1930.

Col. the Hon. MURRAY MACLAREN, C.M.G., LL.D., M.D., M.P.,
Minister of Pensions and National Health,
Ottawa, Ont.

SIR,—In accordance with the provisions of the Pension Act I have the honour to submit herewith a report of the work of the Federal Appeal Board for the fiscal year ending March 31, 1930.

I have the honour to be, sir,
Your obedient servant,

C. B. TOPP,
Secretary.

REPORT OF THE FEDERAL APPEAL BOARD

Covering fiscal year ending March 31, 1930

During the twelve months ending March 31, 1930, the work of the board proceeded along similar lines to the period covered by the previous year's report. A steady increase in the number of appeals received each month was noted and although the board progressively increased the number of cases dealt with daily at its sessions, the end of the year showed an increase in the total of appeals awaiting hearing as compared to the previous year.

Four thousand two hundred and twenty-two appeals of all classes were received during the year. This was an increase of 1,138 over the previous year, or 36·9 per cent. In the same period the board heard 2,873 appeals, this figure being an increase of 978, or 51 per cent over the number dealt with during the twelve months preceding.

An increasing proportion of the claims placed before the board were found to be within its jurisdiction, and of the total received during the year only 155 were cases which could not be heard by the board owing to the provisions of the Pensions Act which limited the class of cases which could be heard. Two hundred and sixty-seven daily sittings were arranged at different centres throughout the Dominion and as in previous years these sessions took place at points from coast to coast.

Quorums of the board were absent from Ottawa during the year more than 300 days and travelled approximately 28,000 miles in the course of their duties, or a total of approximately 112,000 miles if the aggregate of travel by each member of the board is considered. The policy of hearing appeals in the presence of appellant in his own locality was continued although a number of sessions were again held at Ottawa to deal with appeals in which the appellant desired a decision rendered without appearing in person. Nearly half of the total of appeals received during the year again were received from Ontario.

SECOND APPEALS

Second appeals, made possible by the provisions of section 51-5 R.S.C. 1927, continued to be entered, and during the year many such cases were received. To date 567 second appeals have been entered, of which 56 were allowed, 265 disallowed, while 5 are still pending judgment.

MERITORIOUS CASES

Up to March 31, 1930, a total of 456 applications have been submitted for consideration under section 21 of the Pension Act which has to do with the award of pensions in cases regarded as specially meritorious by a Special Tribunal composed of two members of the Board of Pension Commissioners and two members of the Federal Appeal Board. Of these applications 29 awards have been made under this section.

IMPERIAL CASES

The board continued during the year to examine Imperial appellants on behalf of the Imperial Pensions Appeal Tribunal and during the year examined and forwarded recommendations in 37 such cases.

EXPENDITURES

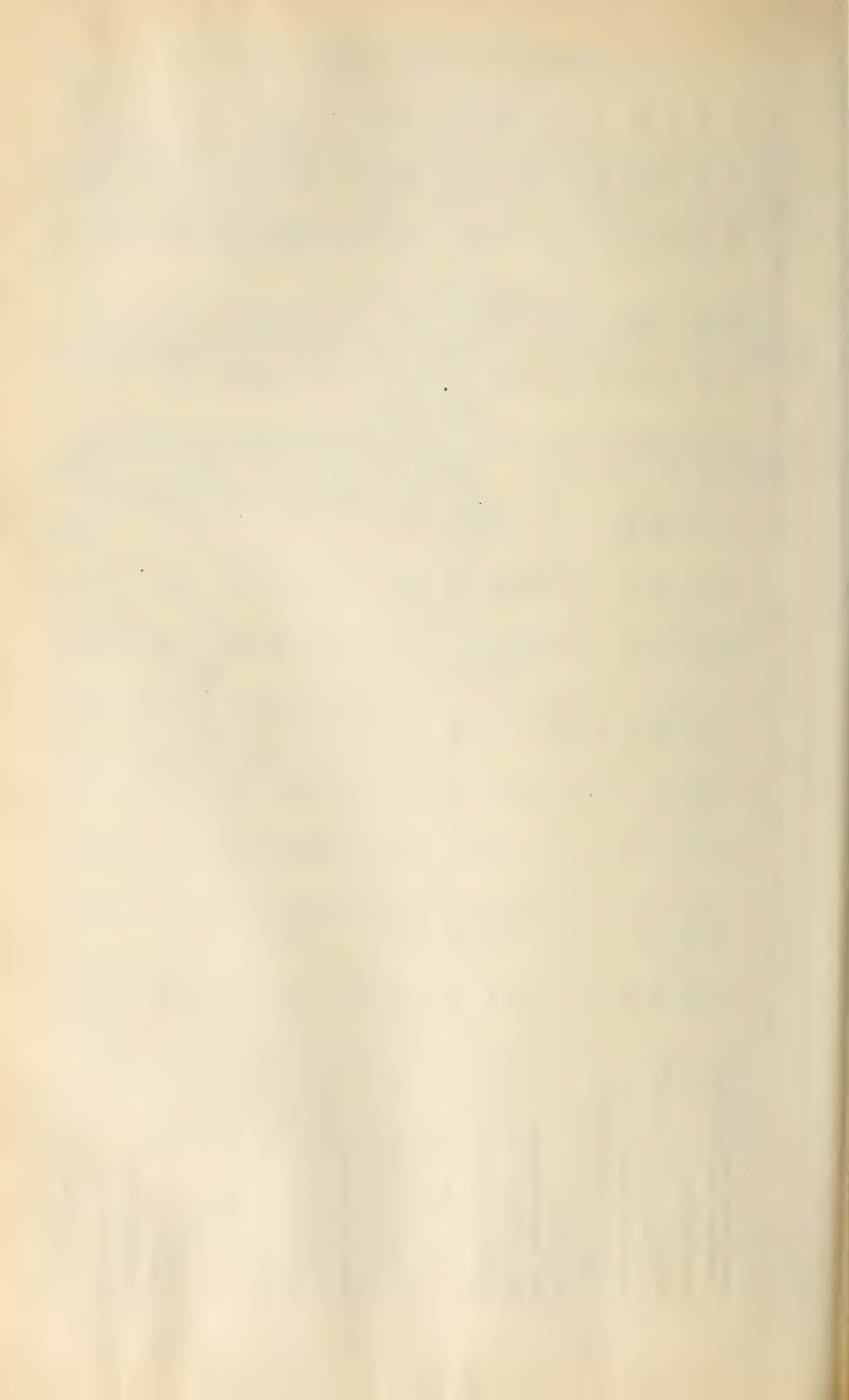
The amount voted by Parliament for the work of the board was again \$130,000. Details of the expenditures appear in the report of the Department of Pensions and National Health.

Following are statistical statements covering the work of the board to date:—

	Halifax	Saint John	Charlottetown	Quebec	Montreal	Ottawa	Toronto	London	Winnipeg	Regina	Calgary	Vancouver	Victoria	Totals
Appeals awaiting further information (including new cases under review).....	29	26	6	10	114	134	128	54	64	43	47	37	22	714
Outside jurisdiction.....	182	132	11	78	935	499	462	177	797	120	209	260	156	4,018
Reopened by B.P.C. since appeal entered and allowed.....	79	32	7	16	160	182	292	101	153	38	76	65	36	1,237
Appeals waiting hearing.....	188	59	18	.....	242	290	983	353	177	49	241	258	68	2,926
Appeals waiting hearing (O.S.A.'s not ready).....	.....	.....	.....	54	285	.....	.....	.....	781	184	.....	.....	75	1,379
Set for hearing.....	.....	.....	.....	.....	.....	23	.....	.....	80	.....	23	.....	.....	126
Heard, judgment outstanding.....	3	4	1	3	14	57	148	20	10	122	153	5	1	541
Heard, adjourned.....	8	15	.....	2	9	16	33	3	7	11	7	5	3	119
Appeals heard, completed.....	688	372	99	159	747	1,274	2,017	648	677	466	661	739	313	8,860
Totals.....	1,177	640	142	322	2,506	2,475	4,063	1,356	2,746	1,033	1,417	1,369	674	19,920
Appeals received since Mar. 31, 1929.....	285	148	31	67	421	496	943	400	303	267	363	365	133	4,222
Meritorious, in preparation.....	1	1	.....	.....	1	1	2	.....	1	.....	1	1	.....	9
Meritorious, ready for consideration.....	.....	1	1	.....	5	3	.....	.....	2	.....	2	.....	.....	14
Meritorious, heard by each Board.....	14	3	5	5	17	44	57	24	23	15	26	16	12	271
Meritorious, heard by Special Tribunal.....	10	8	4	4	9	20	44	12	16	3	13	10	9	162
Total meritorious.....	25	13	10	9	32	68	103	36	42	18	52	27	21	456

IMPERIALS

Appeals heard.....	19	5	1	4	69	39	373	96	86	57	76	132	40	997
Appeals set for hearing.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Appeals awaiting.....	.....	.....	1	.....	1	.....	3	2	1	3	1	6	1	19
Totals.....	19	5	2	4	70	39	376	98	88	60	77	138	41	1,017



NATIONAL HEALTH DIVISION

FOOD AND DRUGS DIVISION

This was a year of progress in the Food and Drug Division. The major part of the work was, as heretofore, the administration of the Food and Drugs Act with inspection aid and analytical services for the Proprietary or Patent Medicine Division, with laboratory work for the Narcotic Division, for the Department of Agriculture and other departments of Government.

Steadfast adherence to the fundamental principles upon which the policy of administration was based has maintained a measure of protection to the purchasing consumer of foods and drugs in a time when inducements to the practice of adulteration and misbranding are strong because of keen competition. In these days when industrial changes are so numerous with the advance of science and its application to industry, it is sometimes difficult to safeguard the interests of the consumer and to prevent the over-exploitation of new, immature discoveries about which may be woven a spell of romance. False or exaggerated claims were never more profitable. The truthful label is one of the most important forces in combating this evil, and a persistent effort is made to see that food and drug packages are properly marked.

INSPECTION SERVICES

Twenty-six inspectors, distributed at strategic points, collected 12,287 samples for analysis in the laboratories. This, by no means, represents all the work done; in fact, the stocks and shipments of goods examined were many times greater in number. With a full round of duties including inspections not only of goods on sale, but of importations, with interviews, correspondence and prosecutions, these officers had a busy year. Prosecutions numbered 91, as follows: cream of tartar 1, cocoa 3, flavouring extract 1, drugs 1, maple products 9, meats 51, pepper 8, soft drinks 17. The sum of \$10,022.30 was collected in the fees for analysis, fines and costs. These prosecutions represent only the last recourse in dealing with wilful and persistent breaches of the Act after explanations and warnings have failed. In the figures quoted, the large number for meats was due to the colouring of sausages and the addition of chemical preservatives. Saccharine in soft drinks has also been the cause of numerous prosecutions.

LABORATORY SERVICES

The laboratories maintained at Halifax, Montreal, Ottawa, Toronto, Winnipeg, and Vancouver are for regulatory purposes, not for research. Original investigations of scientific problems are undertaken only when the demands of law enforcement render the development of new methods indispensable. The following table shows the number of samples examined in routine:—

SAMPLES EXAMINED IN THE FOOD AND DRUG LABORATORIES

Nature of samples	Laboratories					
	Ottawa	Montreal	Vancouver	Winnipeg	Halifax	Toronto
From Inspectors of Food and Drugs....	1,683	1,612	4,201	1,862	1,144	1,784
Department of Agriculture.....	471	699	410	123	24	86
Royal Canadian Mounted Police (narcotics).....	24	92	118	23	13	27
Other departments of Government.....	136	1	204	100	22	1
Miscellaneous.....	33	32	4	10	8	
Totals.....	2,347	2,436	4,937	2,118	1,211	1,898
Grand total.....	14,947					

It must be remembered that, like all statistics, these figures must be interpreted with caution and only in the light of understanding. Every analysis is undertaken with a purpose, and it is contrary to policy to make tests and accumulate figures if no use can be made of them when they are assembled. Some analyses are simple, other exceedingly intricate requiring expensive equipment, skilful operation, and the time may not be a few minutes but extend to a week or more. An analyst engaged in this work is in a rather trying position, as his certificates are subject to dispute in the event of the owner of goods seized or detained, deems himself aggrieved and engages an analyst to check up the findings of the Government laboratories. The Dominion analysts are to be congratulated on the fact that in no instance this year was a certificate controverted.

Some of the more important articles of food receiving attention are mentioned in the following tabular summary (see table A) of samples examined. It is to be noted particularly that these samples of any commodity do not represent the entire market, as they are taken mainly from stocks under suspicion. In practically every line there are well-known brands of superior quality. Multiple analyses of such products are not warranted. The money, time and energy so expended is better devoted to the investigation of food merchandise of doubtful purity and incorrect labelling.

TABLE "A"—FOODS

Article	Laboratories						Total	Remarks
	Halifax	Montreal	Ottawa	Toronto	Winnipeg	Vancouver		
Alimentary pastes—macaroni, spaghetti, etc.....	2	57	4	47	116	88	314	21 adulterated or misbranded.
Baking powder and materials.....	10	4	31	11	10	5	71	9 adulterated or misbranded.
Beans.....	22	31	3	1	12	171	240	1 excess hydrocyanic acid.
Beverages.....	37	246	53	86	74	9	505	4 prosecutions for saccharin.
Breakfast foods, cereals, etc.....				7	13		20	No adulterations.
Butter.....	8	665	300	52	28	561	1,614	
Canned foods.....			1		7	24	32	1 adulterated (spoilage).
Cheese.....	2	68	43	11	18	46	188	19 adulterated or misbranded.
Cocoa and chocolate.....	17	67	15	65	25	28	217	17 adulterated.
Cocoa butter.....		2		23		3	28	No adulterations.
Coffee, ground, essences and substitutes.....	35		10	14	29		88	2 misbranded.
Confectionery.....		10	31	189	39	275	544	66 adulterated or misbranded.
Cream of tartar.....		3	12	13	6		34	7 adulterated.
Eggs—processed and substitutes.....	5		2			8	15	
Figs.....	45	23	1	56	1	52	178	5 adulterated.
Fish, including shell-fish.....	1		9	2	1	264	277	6 condemnations (shrimps and smelts).
Flavouring extracts.....	57	8	45	31	23	18	182	28 adulterated or misbranded, 1 prosecution.
Flour.....	2	2	14	2	4	2	26	No adulterations.
Food colours and preservatives.....	17	2	19	179	24	39	280	18 misbranded.
Fruit juices and syrups.....		6	1	6	7	30	50	9 adulterated or misbranded.
Fruits, dried (other than figs).....	152	80	96	102	251	953	1,634	12 adulterated.
Fruits, fresh.....	2	43			19	559	623	13 rejections (imports),
Honey.....		5	13	7	7	29	61	13 misbranded.
Invalid foods, etc.....	1	3	7	1	7	20	39	1 gluten bread substandard
Jam, jelly, etc. (fruit products).....	3	1	104	3	110	5	226	Largely for standardization.
Jelly powders, gelatin, custard powders, icings.....	46	14	52	31	71	17	231	12 misbranded.
Liquors, wines, ale, etc.....	22	5		40	101	24	192	134 excise liquors, 38 wines.
Maple products.....	68	325	32	6	3	1	435	50 adulterated.

TABLE "A"—FOODS—*Concluded*

Article	Laboratories						Total	Remarks
	Hali-fax	Mont-real	Ot-tawa	Tor-onto	Win-nipeg	Van-couver		
Meat and meat products..	79	64	106	175	141	149	714	123 adulterated (sausage and Hamburg steak).
Mince meat.....	7		6	6		5	24	2 misbranded.
Mustard.....	31	8	2	19	5	8	73	6 adulterated or misbranded.
Mustard, prepared.....	11	4	1		2	2	20	2 misbranded.
Nuts (imported).....	93	141	2	223	355	137	951	3 shipments defective.
Oils (olive, peanut, salad, etc.).	42	4	21	56	135	32	290	14 misbranded.
Olives.....		5	6	6	6	39	62	40 of them were ripe olives.
Salt.....			61		3	1	65	60 were iodized.
Sauces, pickles, etc.....		1	4	12	4	58	79	9 misbranded.
Spices.....	223	55	493	88	241	77	1,177	35 adulterated, 8 prosecutions.
Sugar.....	22	24	3	2	4	6	61	8 misbranded.
Syrups and molasses.....		56	16	2	5	10	89	7 misbranded.
Tea.....	15	3	1	2		98	119	5 misbranded.
Vinegar.....	2	49	25	7	5	14	102	9 adulterated.

Alimentary Pastes.—The highest grades of macaroni and noodles are made with egg, and of a light yellow colour imparted by the egg-yolk. All possible encouragement should be given to the development of such quality products. Objections have been raised against the use of dye to conceal inferiority or to enhance the value of cheaper products.

Baking Powder.—Complaints regarding deteriorated stocks were fewer than in previous years. Possibly the more rapid turn-over in grocery supplies has been the improving influence. Baking powder low in gas-producing properties is removed from the trade wherever found.

Beans.—Whenever there is a shortage in domestic supplies of beans, importers turn to other countries, especially to Asia, and bring in very large shipments. These come through the port of Vancouver. The special feature to be observed is the possible production of hydrocyanic acid when heated with water. Unless the Rangoon bean is very carefully cooked there is danger of poisoning. A number of cases in Canada some years ago directed attention to this hazard. The Asiatics may know how to prepare such beans, but for us, the only safe procedure is to refuse entry of shipments that may be dangerous. Only one consignment was rejected this year.

Beverages.—Beverages are always a problem from the regulatory standpoint. Companies operating on a small scale are continually starting up with something new, and begin without paying attention to the requirements respecting labelling, the use of preservatives, dyes, etc. The use of saccharine as a sugar substitute has been detected in a few instances. Of the seventeen prosecutions arising from the adulteration or misbranding of soft drinks, four were because of the persistent and wilful use of saccharine. Import shipments of fruit juices were carefully inspected. Part of the world trade in concentrates is free from adulterants and there is no reason for special tolerance in permitting excessive proportions of chemicals, such as sulphites, in the output of any country. Chemical preservatives should not be used in any food if the trade can possibly function without them.

Breakfast Foods and Special Cereals.—In these products the labelling has been checked and, except for damage by insect infestation, no adulteration was found. As a general rule, the purchasing consumer receives poor value for his money, but seems willing to pay high prices for convenience in preparation for the table, because if the main consideration were the maximum of nutriment with minimum expenditure, this industry could not thrive.

Butter.—The majority of samples analyzed were for the purposes of the Dairy Industry Act. In spite of penalties imposed, adulteration is still found occasionally. Not only is there a profit to be derived by working the butter to excess water content, but the admixture of other fats is tempting to processors. Imported butters were found to contain no borie acid.

Cheese.—The changes in market conditions owing to the introduction of processed cheeses made from a cheddar base with the addition of emulsifiers have necessitated supervision of labelling. Cheese containing less than 45 per cent fat calculated on the moisture-free basis, is in general well labelled as skim-milk cheese. In the softer cheeses there is some need for a standard specifying maximum water content.

Cocoa Products.—Inspection was made of many import shipments of cocoa beans. The raw material shows improvement in quality, but the same cannot be said of the manufactured products. It was a great surprise to find on the market prepared cocoa containing but a fractional percentage of fat, an admixture with starch and faced with very finely ground iron oxide. Seizures were made, penalties exacted, and it is believed that the market has been cleared. Considerable work was done with a view to fixing standards of quality. Extraction processes have become so highly developed that there is a tendency to make the cocoas very low in fat.

Coffee, Coffee Extracts and Coffee Substitutes.—Abundant supplies of good coffee have apparently lessened the demand for substitutes. The decaffeinated coffees were found to meet label claims. Misbranding in a coffee essence was corrected.

Confectionery.—Candy and biscuits were examined particularly for non-permitted aniline colours. Numerous import shipments were refused entry.

Cream of Tartar.—This compound is used not only in the manufacture of baking powder, but also in simple combinations with soda suitable for the domestic kitchen or the small bakery. There is some difficulty in keeping clear of arsenic and other contaminating impurities.

Figs.—There has been a most remarkable improvement in the quality of figs coming to the Canadian market. A few years ago it was necessary to admit a tolerance of 35 per cent defectives (wormy), if we were to have any figs at all. Even on that basis many shipments were refused entry. No doubt this inspection had a corrective influence resulting in improved condition at sources of production. This year the tolerance of defectives was lowered to 10 per cent, and even with this strict standard, only five shipments in 178 were rejected.

Fish and Shell-fish.—Watering oysters is all too common in the retail trade. As a result of numerous analyses it has been found that there is no occasion for the drainable fluid from shucked oysters exceeding 10 per cent. A standard will be developed on this basis.

Flavouring Extracts.—Samples examined showed improvement in quality when compared with those collected in other years. Several found adulterated emanated from one source. It is hoped that the resulting prosecution will have a wholesome effect.

Food Colours and Preservatives.—Conditions in these commodities show advancement, with less than 7 per cent of the samples misbranded. The aniline colours permitted in foods would meet the needs of the trade very well if a good blue could be added to the list. Work now in progress indicates that Brilliant Blue will prove satisfactory.

Fruits, Dried (other than figs).—Shipments coming to Canada are of better quality. Practically all consignments are examined for sulphites. Three large shipments were refused entry because of the presence of excess preservatives.

Fruits, Fresh.—It may be that the absence of frost damage at the citrus groves lessened the number of detentions necessary to maintain quality in imports. Five hundred shipments of oranges were found clear without one rejection. Four shipments of grapefruit, one of pears, six of peaches, and two of cherries were refused entry.

Honey.—Honey is free from adulteration, but there is difficulty in securing compliance with the act in the matter of properly marking contents. Weight should be given as *net* weight—not gross. The consumer must pay for the container, but a five-pound pail of honey, for example, should contain five pounds of honey. This was clearly the intent of section 7 (f) of the Food and Drugs Act. It is expected that as a result of the steps taken in an educative way, this situation will gradually improve.

Jams, Jellies, and Marmalades.—These fruit products have been investigated for the purposes of standardization. In the course of time a very undesirable condition has resulted not only from the standpoint of the purchasing consumer, but also from that of the trade. The misuse of the word “pure” in labeling a filled product, artificially coloured, is a practice to be condemned. In fixing standards, two guiding principles will be observed. A pure jam should be made from fruit and sugar only, and with modifications bringing in pectin preparations, dyes and preservatives, the label should give a truthful description. The purchaser is entitled to the opportunity of obtaining that information. The regulations now promulgated do not prohibit the manufacture of the cheaper grades of jam, but do demand that they shall be sold for what they actually are.

Meat and Meat Products.—Numerous prosecutions have been necessary because of the persistent and wilful use of dyes and chemical preservatives, such as sulphite, in sausage and comminuted meats, such as Hamburg steak. These forms of adulteration are pernicious. Not only are the products so treated made to appear better or of greater value than they really are, but incipient putrefaction may be disguised. The inspectors endeavour to inform all manufacturers and dealers concerning the requirements of the regulations, and then to see that there is proper observance. Action will be taken wherever adulteration is detected.

Salt.—Table salt is not regarded as adulterated if iodide has been added and the label so states. This principle was decided years ago, when iodized salt was first advocated for the prevention of goitre. Undoubtedly there is some connection between iodine and the thyroid gland, but the exact relationship has not been settled in a mathematical way. Authorities seem to agree that a salt slightly iodized is a convenient preventive agent, the slight damage done to a very small percentage of consumers actually goitrous being greatly overbalanced by the good done by preventing goitre in thousands of individuals. Just how much iodide or how little is required cannot be declared with certainty. Evidently it is very small.

In these circumstances all that could be done was to estimate the iodine in samples and see that the composition of the iodized salt as sold was reasonably close to the label claims. In sixty samples examined, a few discrepancies were noted, but the errors were not regarded as serious. There are difficulties in the way of incorporating a very small proportion so that the product is homogeneous.

Vinegar.—The quality of the malt and cider vinegars on sale is now better than ever before in Canada. This improvement is due to the disappearance of spirit vinegars coloured with caramel or burnt sugar.

DRUGS

During the year under review, over six hundred pharmacopoeial and kindred drugs were examined, as well as some seven hundred imported medicines and nearly three hundred samples of narcotics. Many samples in the first group

represent special surveys and investigations of particular drugs and preparations, but the majority are routine in character, presenting certain features that may well be noted.

Anæsthetic Ether.—Anæsthetic ether has presented one of the features of the year's work. Quite independently of any popular anxiety which has found expression in the public press, but primarily in fulfilment of the responsibility laid upon the division, a very exhaustive survey of ether for anæsthesia as used in hospitals throughout Canada has been made, all of the larger institutions having been visited by our inspectors, who have taken samples and investigated the system of purchase and conditions of storage. The samples have been submitted to an exhaustive analysis, including, in addition to the tests of the British and American Pharmacopœias, certain very sensitive reactions designed to detect very small amounts of impurities, so as to render possible a classification according to quality. On the whole, these samples have passed the ordeal very creditably. The survey comprised some 257 packages, representing nine different brands. The two leading varieties constituted 93 per cent of the whole collection. Classifying these two together (A), and the remaining seven by themselves (B), the results may be summarized thus:

Quality	Number of samples	
	Leading brands (A)	Smaller groups (B)
Very good	37	2
Good	50	1
Satisfactory	114	2
Just passable	29	3
Inferior	8	11
	<hr/> 238	<hr/> 19

Two brands with only a small distribution have been eliminated from the market and replaced in the institutions concerned by those of Class A; stocks of a third were seized and diverted from their original purpose; while in the case of a fourth, the manufacturers were cautioned. Strangely enough, these inferior brands were not in use when fatalities occurred; the ether used in fatal cases submitted to the Department, proved above reproach.

One feature, however, stands out in bold relief, and that is the gradual improvement in this substance that has taken place during recent years. In 1929-30 about eight per cent of the samples were inferior, compared with 65 per cent in 1925-26, and 25 per cent in 1927-28.

A study of the stability of ether under various conditions of storage revealed that ether is preserved best in hermetically sealed cans with exclusion of air and light. Bottles are not satisfactory. Moreover, it was observed that ether begins to deteriorate within a few days of opening; hence ether intended for anaesthesia ought not to be carried over in opened cans from day to day or from week to week. The ideal should be to use cans no larger than the average day's consumption.

Blue Ointment.—A preliminary survey of 11 samples of this ointment was made in the Ottawa laboratory during the year. The results covered a very wide range—from 6.8 to 44.8 per cent of mercury, instead of 30 per cent, as required by the British Pharmacopœia. Four showed reasonable compliance with this standard. One difficulty exists in the multiplicity of formulæ. The name "Blue Ointment" is in general use throughout the drug trade as a synonym for mercury ointment, although not officially recognized as such. But the Pharmacopœia of the United States does apply this name to an ointment containing 30 per cent of mercury, and the British Pharmaceutical Codex to one containing only 10 per cent.

Boric Acid Ointment.—Boric acid ointment is neither difficult to prepare, nor costly, nor liable to deterioration if properly stored, so there is little excuse for strengths such as 6·7, 4·9, 4·5 or 3·7 per cent instead of 10 per cent of boric acid.

Camphorated Oil.—This preparation has received a good deal of attention during the past year. Seventy-three samples showed an average content of 19·2 per cent of camphor; of these, 16 were deficient and one contained as much as 25·7 per cent of camphor instead of 20 per cent. Only 8 were prepared with olive oil as base, 2 with arachis oil, and the remaining 63 with cottonseed oil. Hence only 10—if of full strength—could correctly be labelled “B.P.” The use of cottonseed oil is sanctioned in the United States, but druggists must be careful to add the reference “U.S.P.” to the name, if that base has been used. This point appears to have been overlooked in a number of instances and has necessitated the cautioning of vendors by our inspectors. It is also necessary to remind druggists of the provisions of section 7 (f) of the Food and Drugs Act, which demands a statement of net contents upon the main panel of the main label where the gross weight is over two ounces. Figures blown in the glass of the bottle upon either bottom or sides are not deemed sufficiently conspicuous to comply with the Act.

Elixir Potassium Bromide.—This is a typical member of a group of preparations that presents some difficulty in the administration of the Food and Drugs Act. They are sold more or less as specialties, with a part formula on the label listing the amounts of the active ingredients. They do not appear in the pharmacopoeias although some are mentioned in standard works, but it would seem that the intention of the Act is being evaded by the presence of a formula on the label. Elixir of Potassium Bromide as a rule contains 80 grains of potassium bromide per fluid ounce, and this is all the information supplied by manufacturers. Hence variations in colour and flavour are to be expected. A survey of 48 samples made in the spring of 1929 revealed a commendable uniformity in potency. But the colours varied greatly; some were colourless, some deep red, others purple, cherry red and orange. One chain store furnished three samples, one colourless, one cherry red and one purple. It is liable to prove disconcerting to receive two of these as the same medicine. It is confidently anticipated that the new Canadian Formulary, presently in course of preparation, will exercise a controlling influence upon such undesirable variations.

A still more serious matter is the ready substitution of elixir of sodium bromide, of triple bromides, and in one case of five bromides, in place of elixir of potassium bromide.

Ethyl Chloride.—Recent fatalities during anaesthesia caused suspicion to fall on ethyl chloride as being responsible for the trouble. This led to a survey of available supplies. The collection consisted of ten samples of English, American and German brands. It is a pleasure to be able to testify to the excellence of every one of these; all were entirely satisfactory. Fortunately the conventional packing in an ampoule with a patent spraying nozzle furnishes an ideal protection against deterioration.

Fowler's Solution.—Samples of this preparation taken in the Province of Quebec did not show up as well as those reported last year. Of twenty-two samples tested in the Montreal laboratory, only nine contained between 0·95 and 1·05 per cent of arsenious oxide, while two stocks containing 0·039 per cent and 0·084 per cent, respectively, were ordered to be destroyed. There is no excuse for so great a deficiency.

Hydrogen Peroxide.—Hydrogen peroxide figures largely in the annals of the last fiscal year. Not only is this article open to criticism in the matter of strength, but fault has also been found with the labelling. There is plenty of room for improvement in quality. The average content of hydrogen dioxide

in the samples examined was 2.69 per cent, which does not compare favourably with an official requirement of 3 per cent. Close upon 50 per cent were below the minimum limit set by the British Pharmacopoeia, but none exceeded the official maximum. A number also presented evidence of excessive amounts of free acid.

Likewise, the labelling calls for some comment. Eighteen specimens of different brands were purchased and the labels studied. Eight had contents stated, ten had not; nine carried declarations as to preservatives and nine did not, notwithstanding the fact that the use of such substances in hydrogen peroxide is virtually universal. Again, some packages were over ten years' old. Manufacturers have been advised individually by the inspectors of the legal requirements as to statement of contents and, in the majority of cases, have governed themselves accordingly.

Imported Medicines.—The policy of inspecting importations of medicines at the ports has been continued with great benefit to the people of Canada. Hundreds of shipments have been refused entry on account of failure to comply with the law respecting labelling. Many of these did not bear a statement of contents, while others contained, on circulars and labels, false and exaggerated therapeutic claims which serve only to mislead the purchaser.

Narcotic Drugs.—The analysis of 298 samples of narcotics in the course of the year demanded very careful work. Not a certificate was found erroneous.

Nux Vomica Preparations.—The improvement noted in this group last year has been maintained. Ten tinctures were examined, two of which were deficient in strychnine—one was slightly low, the other 60 per cent below strength. On following up the latter, it was ascertained that the makers had carried out the pharmacopoeial instructions in detail, using liquid extract they had purchased in good faith from a firm of wholesale druggists. This liquid extract was found proportionately deficient and was ordered destroyed.

Seidlitz Powders.—Seidlitz powders also have improved during the past year. Our chief criticism, however, is based on the failure of the trade to mark on the package, correctly and conspicuously, as required by the Act, the number of doses.

Spirit of Camphor.—Spirit of camphor, on the whole, has been well up to strength with respect to camphor. It is noted, however, that in two-thirds of the samples, the percentage of alcohol was slightly in excess of that necessary.

Sweet Spirits of Nitre.—During the period under review, a good deal of effort has been put forth to ensure the maintenance of satisfactory material both by Ottawa and the branch laboratories. Samples containing as little as 0.24 per cent and as much as 3.12 per cent of ethyl nitrite have come under notice. Exceptionally poor material was disposed of by destruction, while other substandard material has been detained until put right. Twenty-four per cent were below strength, nine per cent above permissible limits, and the remainder averaged 2.37 per cent of ethyl nitrite, which compares well with the official range of 1.52 to 2.66 per cent. This is slightly better than in the previous year.

Syrup of Ferrous Iodide.—This preparation is still being sold under strength. Our records indicate an average content of 4.07 per cent of ferrous iodide, instead of 5 per cent. The majority of samples examined in the past year were collected in the maritime provinces and were all substandard. It is the iodine which dominates the situation during manufacture, and unless manufacturers are careful to keep the chemical reaction between iron and iodine under good control, the latter will be lost by volatilization. Herein lies the probable explanation of the deficiency.

Zinc Ointment.—So far as medication goes, there is little fault to find with zinc ointment. The average percentage of zinc oxide in the samples dealt with works out at exactly 15.0—precisely that prescribed by the British Pharmacopoeia. But in no fewer than eighteen out of twenty-six cases has the official benzoated lard base been replaced by petrolatum and hence only eight samples, representing 31 per cent of the collection, can be considered genuine. It is freely admitted that benzoated lard is not as permanent a vehicle as the higher hydrocarbons and that it may be replaced in the edition of the British Pharmacopoeia now in course of preparation, but if manufacturers prefer to put up for general distribution a zinc ointment they can guarantee will not become rancid, they should adopt the United States formula and label the product accordingly.

Drug Preparations Sold Under Distinctive Names.—These may be divided into two groups—one registered under the Proprietary or Patent Medicine Act, the other with label declaration of medicinal ingredients. There are certain diseases in which self-medication should not be attempted. Sufferers from cancer, tuberculosis, goitre, diabetes or diphtheria should not be misled by romancers who would, to their own profit, advertise and sell remedies of no established value.

The task of applying these principles to the inspection of preparations coming from Europe has demanded sustained effort. It is felt that, in spite of numerous controversies, results are worth while, as the public have been protected from many worthless frauds.

There was but one prosecution under this heading this year. The court dealt very promptly with the defendant who exploited a wonderful system of treatment for all sorts of diseases by fumigating the patient, claiming thereby to be adding iron to the blood and otherwise achieving that which was absolutely impossible.

The plan for next year provides for the continuation of all these lines of endeavour.

NARCOTIC DIVISION

During the period under review the narcotic situation in Canada unquestionably continued to improve. Many traffickers, particularly on the Pacific Coast, were incarcerated, and by the best barometer available, that of price, illicit narcotics continued to be difficult to obtain. So long as quantities vastly in excess of those required for the world's medical needs continue to be manufactured, however, for just so long will Canada, which does not manufacture, but imports as required, be compelled to spend considerable money and energy in combatting the illicit traffic. It is earnestly hoped that an eventual control of world manufacture will be achieved, an objective at which the League of Nations is now aiming.

Canada makes no secret of the fact that narcotic addiction is prevalent within her borders, and it is estimated that some eight thousand citizens are so addicted, but it is not generally realized that these numbers fall within several very distinct categories. There are certain unfortunate people who, by reason of a medical condition which absolutely requires narcotics to be administered by a medical man, eventually develop an addiction which requires increasing quantities of narcotics to cope with such medical condition and addiction. In such instances there can be nothing but sympathy for the persons concerned, and usually the medical condition itself eventually terminates the case. Then there is the person who, occupying a decent position in the community, becomes an addict from a variety of causes, such as over-work, nervous strain, dissipation, or the appetite remaining after receiving narcotics for a medical condition which no longer exists. In such cases it has been found that where the person concerned has *something to lose*, such as family ties or the right to practise a

profession, much can be done *after* the withdrawal of the drug has been effected, and the opportunity exists to weigh carefully against the remaining appetite the serious consequences which will inevitably accrue if reversion again occurs. Cases such as these, and they are unfortunately only too frequent, are naturally dealt with in the strictest confidence, but I am glad to be able to report that so far definite success has been achieved in a number of cases, which naturally affords the greatest pleasure to those controlling the use of narcotics, whose other activities in that regard are, of necessity, frequently very depressing. The greatest credit, however, belongs to the medical profession, many members of which, when given opportunities along the lines mentioned above, co-operate to a remarkable degree, and in a surprisingly large number of cases with little or no prospect of material reward. This Department is quite prepared to definitely state that in cases where there is no underworld association, and the person involved is in a position where a continuance of the narcotic habit will involve serious social, professional or pecuniary consequences, there is every reason to hope that a proportion of cures can be effected, although naturally a number will revert. Some of the cases initiated by, and known to us, have been completely free from addiction for over two years, although it is considered that a period of five years should elapse before any definite claim to permanent cure is made.

Then there is the underworld type of criminal addict, who spends a considerable proportion of his life in jail, either on narcotic charges or for other crimes usually committed in an endeavour to maintain a supply of the drug of addiction at the high prices now obtaining. For these cases there would appear to be no present solution, as the social environment occasioned by association with other addicts, both in jail and after the sentence is served, affords an opportunity of continuance in addiction which is taken full advantage of, and our efforts would apparently be best directed in preventing, so far as is possible, addicts, who are now respectable members of society, from descending, as is so often the case, into the category of criminal addicts. The latter constitute a most dangerous menace to society, and it is unquestionable that drug addiction, in its relation to most of the more serious crimes of the present day, is a very serious problem indeed from a police standpoint in practically all urban communities.

A great step in advance would be made if all provinces were to pass legislation, as Alberta has done, giving power to commit addicts for treatment and provide same, not necessarily in a central institution, but in local hospitals if and when control of the patient is possible. Nova Scotia some years ago passed legislation on the subject, which has not been amplified by the provision of accommodation, and in Ontario, while the provisions of the Mental Hospitals Act apply to drug addicts, the machinery is certainly not utilized to anything like the extent obviously necessary if the problem of drug addiction is to be seriously handled. In February, 1929, however, a committee of the Ontario Medical Association met the Premier of that province, and impressed upon him the

"urgent need for provision of a public institution, government controlled, for compulsory segregation of addicts to be placed under proper medical treatment therein,"

and as is well known a Royal Commission was appointed by the Ontario Government to study, amongst other matters, this problem, although the report of such commission is not yet available. However, until provincial action is taken of a reasonably uniform nature, the question of drug addiction cannot fail to constitute a serious menace to the well-being of this country.

The number of cases of attempts on the part of addicts to obtain narcotics from legal sources by illegal methods, such as thefts, hold-ups, impersonation of physicians over the telephone, etc., cannot be said to be decreasing, although it is, of course, a good indication of the comparative scarcity of illicit narcotics.

In one city, where numerous arrests of traffickers and exemplary sentences by the courts had rendered narcotics unobtainable in the underworld, the medical profession was very shortly thereafter inundated with requests for supplies or cures, not necessarily bona fide, as several arrests of addicts for obtaining narcotics from more than one physician were necessary, as also considerable correspondence along certain lines, before it became clear that this Department had no intention of permitting the physician to unconsciously replace the convicted drug trafficker as a source of supply, even if his sympathies were being played upon as compared with the less worthy motives previously involved.

During the 1929 session of Parliament the Opium and Narcotic Drug Act was revised and consolidated, in the course of which it was referred to special committees of both Houses of Parliament, which afforded an excellent opportunity to explain the methods which were being followed and progress made. As a result a greatly improved Narcotic Act was eventually passed, which has been referred to by the Crown Attorney of Toronto in an annotation thereof (Canadian Criminal Cases, Volume 53) as follows:—

“From every point of view the statute now in force is an admirable piece of legislation, coherent and consistent, and well calculated to effectuate the object for which it was passed.”

The principal changes involved the addition of the lash, in the discretion of the judge, to the imprisonment provided for drug traffickers, and the addition of the offence of trafficking in substances held out or represented by the accused to be a narcotic. It was also made an offence, punishable by fine only, for a person to get himself supplied with narcotics or prescriptions therefor by two physicians at the same time, while no one, except members of the medical, dental professions, etc., can now send narcotics by mail. Provision is also made for the forfeiture of automobiles and other conveyances, as also money, used in connection with any narcotic offence.

In so far as the legal traffic in narcotics is concerned, the importations into Canada were not abnormal, and well within the estimate of our requirements furnished in advance to the League of Nations. Owing to Canada having ratified the Opium Convention, our statistics of imports and exports are, for the first time, prepared by calendar year, but when the figures for 1929 are compared with those for preceding twelve months' periods (see table 3), it will be noted that the importation of cocaine was well below the average of the three preceding years, and an importation of 2,180 ounces, as compared with 2,967 in 1927-28, 2,659 in 1926-27, and 2,633 in 1925-26, may be considered quite satisfactory, although the opinion expressed last year is repeated, namely, that we will not for some time reach the point where our annual consumption of this narcotic is less than 2,000 ounces. With regard to morphine and heroin, 7,025 ounces were imported, or nearly 1,000 ounces less than the average of the three preceding complete years, and 300 ounces less than the complete fiscal year 1928-29. In this connection it is interesting to note that the importation into Canada of codeine, a non-habit-forming drug, which is not covered by the International Opium Convention, is rapidly increasing. In so far as crude opium is concerned, the importation in the calendar year 1929 was 1,145 pounds as compared with 1,084 pounds in the fiscal year 1928-29. This opium was all legitimately used in connection with the normal legal trade.

There are, in Canada, one hundred and twelve wholesale licences issued annually to firms who import and export, manufacture or sell narcotics and preparations containing same, but each individual importation is covered by a separate licence which, in accordance with the terms of the International Opium Convention, must be also covered with an export licence from the country from which the purchase is made, and which latter is only issued after the production of Canada's import permit. In this way no country can have narcotics legally consigned to it without having granted prior permission. In addition to supplies

received from other countries, certain narcotics previously seized from illicit sources are sold to licensed wholesalers after passing the requisite standard of purity, and during the calendar year 1929, 310 ounces of cocaine, 305 ounces of morphine and heroin and 11 pounds of gum opium were so disposed of. The exportation of narcotics from Canada is negligible, consisting almost entirely of ordinary retail druggists' requirements despatched to Newfoundland, although the International Convention, involving export licences from Canada and import licences from Newfoundland is strictly adhered to in connection therewith.

During the period under review it was necessary to institute proceedings against two physicians and one retail druggist. In so far as the former were concerned, both cases involved the supplying of narcotics to individuals under conditions which were illegal, and substantial financial penalties were imposed, while in the case of the retail druggist, conditions affecting two drug stores were involved, and two fines of \$200 were imposed as penalties.

In so far as the illicit traffic is concerned, further progress was made in incarcerating the larger traffickers in particular, and in the twelve months ending March 31, 1930, the following are the principal sentences imposed: 2 of 7 years, 1 of 6 years, 10 of 5 years, 6 of 4 years, 7 of 3 years, 14 of 2 years and 31 of 1 year and over, while in the case of a second offender in Vancouver the lash was applied. This total of 174 years, as indicating the more important cases, compares with 158 years in the preceding fiscal year. When one remembers that there is a boundary line of 4,000 miles between Canada and the United States, it is obvious that the opportunities for illicit traffic are numerous. In addition there is, of course, the problem of importation from Europe on the Atlantic coast and from the Orient in British Columbia. Experience unquestionably demonstrates the wisdom not only of endeavouring to concentrate upon the detection of narcotics in process of being introduced into this country, but also upon the detection of the trafficker in the act of selling after introduction. If narcotics being smuggled are alone seized, the trafficker is free to continue his operations, and doubtless allows for a percentage of loss, whereas with a properly organized intelligence service, the influx of any considerable quantity of narcotics in any given community is very soon known, and the arrest and conviction of the owner or vendor thereof acts as a far greater deterrent than a mere seizure, and automatically prevents further trafficking in so far as those individuals are concerned. It should also be borne in mind that in the table of convictions printed herewith the number of cases of "selling narcotics" by no means represents the number of traffickers convicted. The penalties for possession are similar in range to those for selling or importing, and it very frequently happens that traffickers are charged with possession in circumstances where their guilt is obvious, rather than evidence being given of an actual sale, under conditions which would expose the persons working on the cases, and render future activities much more difficult.

Many of the smaller cases of breaches of the Narcotic Act, involving "deck peddlers", "opium smokers", etc., are handled by municipal and provincial police forces. These do not necessarily have to be reported to this department, although many of them are; consequently the only certain means of ascertaining exact statistics for Canada as a whole is to work in conjunction with the Dominion Statistician to whom all cases are reported by the courts for each year ending September 30. These are carefully checked with our records, duplications, etc., eliminated, and the result gives a very good yearly basis of comparison. In the year ending September 30, 1929, 567 persons were convicted, as compared with 430 in the previous year. Of these, 258 were federal cases, while the number of provincial and municipal cases was exactly the same as last year, namely, 309. There were 189 cases which involved the illicit sale or possession of narcotics, as compared with 227 the previous year, while 373 were in connection with opium smoking, possession of paraphernalia, etc., as

compared with 166. This large increase in connection with opium smoking is due to the increased activity of municipal officers in handling this type of case, and to certain Chinese investigations by federal officials, which incidentally brought to light the existence of opium smoking on a considerable scale in certain communities.

The most important occurrences from a federal standpoint during the year were the location in the United States of two long and badly wanted men, after searches on the parts of officers of both the United States and this country, extending over a year in one case and two years and a half in the other. Harry Astroff, for whom a warrant was issued in Montreal in 1926, in connection with the illegal possession of a very large amount of narcotics, was located on a race-track near New York, and waiving extradition, returned to Canada. After a bitterly contested and lengthy trial, the jury disagreed. Upon the second trial he was found guilty and sentenced to seven years in the penitentiary, but is now on \$30,000 bail pending the hearing of an appeal, which he has entered.

The other case was that of a Chinese trafficker in Victoria, named Wong Wa, who absconded after being sentenced to a penitentiary term, and while on bail pending the hearing of his appeal, which was dismissed. As in the Astroff case, it was felt that no effort or expense should be spared in bringing this man to justice, and he was in due course located in Chicago. Extradition proceedings, which were initiated, were strenuously opposed, as were also several applications for Habeas Corpus, but eventually Wong Wa was brought back to Canada and placed in the penitentiary to serve his term.

Another very interesting and important case from the opposite angle was the location in Vancouver of an important trafficker, who had jumped his bail in San Francisco. He was arrested and held for extradition proceedings, but was later given his freedom by the court on the ground that, while an undoubted *prima facie* case had been made out, the United States Federal Narcotic Act, known as the Harrison Act, was a revenue measure, and not a criminal statute, and therefore offences committed thereunder were breaches of a revenue law and not extraditable. This decision struck at the very root of the special Treaty between the United States and Canada providing for, amongst other things, the exchange of narcotic offenders wanted in either country; consequently another application for extradition was made to the Chief Justice of British Columbia by the United States authorities, with whom was associated counsel for the Dominion Government, and extradition was ordered in the following judgment:—

"The prisoner is charged with an offence which it should be to the common interest of all nations to suppress. That is conceded, and in order to support the demand for extradition from Canada, it is necessary to show that the offence is one of those enumerated under the Extradition Acts, also in the particular treaty and that the acts charged amount to the offence, according to the laws of both Canada and the demanding State, the State demanding the surrender, the United States. I find that the demand has been so supported and the prisoner, Sieman, will be delivered up to be sent to the State of California for the purpose of being tried, if so advised, where unquestionably he will get a fair trial, and the matter will be determined one way or the other."

A writ of habeas corpus was then applied for and refused, a further application for a writ of prohibition met with a similar fate, Sieman himself escaped from his place of confinement in Vancouver but was recaptured, and finally he was conveyed to San Francisco where he was sentenced to ten years in the penitentiary and a fine of \$5,000.

During the year 69 aliens, convicted of narcotic offences, involving six months' imprisonment or more, were deported, 59 of whom were Chinese. This brings the total of deportations, since the inauguration of the present policy in 1922, to 731, of whom 578 were Chinese.

In table 7, printed herewith, will be found tabulated the narcotics seized or received from illicit channels, included in which will be noted over 500 pounds of opium and nearly 125,000 heroin tablets.

In so far as the *Maritime Provinces* are concerned, very little trouble is experienced, the two convictions obtained being in Nova Scotia for the possession of opium smoking paraphernalia on the part of some local Chinese.

In *Quebec* the return to Canada of Harry Astroff, previously referred to, involved much work in connection with the preparation for the two trials of this man and the eventual prosecution of two of the Crown witnesses on perjury charges, at the direction of the judge. Astroff, who had a very large supply of narcotics in an office in Montreal, rented in another name, was a member of the gang engaged in international traffic on an extensive scale, several members of which had previously, with the assistance of United States officers, been convicted and sentenced to penitentiary terms.

A Belgian from London, Ont., having offered to supply narcotics imported from Europe into Montreal, proceeded, after very considerable preliminary work on the part of the Mounted Police, to that city, where he offered for sale a quantity of cocaine and opium for over \$3,000. When this man and his associates were arrested at the time of delivery, it was found, as had been to some extent suspected, that the goods sold were not narcotics at all, and that the whole scheme had been to cheat the purchasers out of their money, on the assumption that, the whole transaction being illegal, no action could be taken. This type of case, however, had become fairly common, and for this, as also another important reason, an amendment to the Narcotic Act had only just been made which included in narcotic offences that of "selling any substance represented or held out to be a drug"; consequently these men, somewhat to their surprise, were sentenced to terms of imprisonment.

Thanks to the acumen of a Customs officer on the Quebec border, who took the trouble to verify his suspicions, 100 ounces of morphine were discovered concealed in the automobile in which two Montreal men were returning from New York. One, who had been previously convicted, was sentenced to three years, although he is now out on bail pending appeal, while the other received a sentence of twelve months' imprisonment.

Some minor cases were developed in both Sherbrooke and Quebec city, while in the province of Quebec as a whole there were 151 convictions, as compared with 105 in the previous year. The increase, however, was entirely in connection with opium smoking, there being only 19 cases of illegal possession or selling, as compared with 50 in 1928, and it is beyond question, and confirmed from many angles, that narcotics were exceedingly hard to obtain in Montreal.

In *Ontario* the number of cases, 78, approximated closely to that of the previous year, 76, but the possession and selling cases increased from 42 to 55. The Toronto City Police Force were exceedingly active in narcotic work, and the results of their efforts were most valuable. In so far as Federal cases were concerned, the Mounted Police, after months of most painstaking work, succeeded in bringing to book a gang of Italian traffickers, whose methods were exceedingly clever. Large quantities of narcotics were involved, and while one man eventually jumped his heavy bail, convictions were obtained in the other three cases, and terms of imprisonment imposed. At Windsor two men with previous police records were sentenced to four and three years respectively for the illegal possession of twenty ounces of morphine and cocaine, which they were in process of selling to a member of the Mounted Police specially assigned to the case from another district. This man, posing as a buyer, had arranged certain plans with other members of the force, all of which through quite unpredictable circumstances miscarried, and he was eventually faced with the situation that he was alone in an automobile with the two men and the narcotics, and it was proposed to proceed to a certain hotel where his situation would probably become even more invidious. He therefore brought matters to a head by arresting them single handed; one escaped but subsequently gave himself up, and the

pair were given the sentences quoted above. At Peterborough there was one Chinese case involving the possession of a considerable quantity of opium, in connection with which a sentence of eighteen months' imprisonment was imposed.

In *Manitoba* there were 19 convictions, 18 of which were for possession or selling, and all in the city of Winnipeg, as compared with 25 cases in the previous year. Winnipeg is an outstanding example of the results which may be achieved by means of unrelenting effort on the part of all police forces and the imposition of exemplary sentences by the courts. Three years ago the illicit narcotic situation in that city left much to be desired, but with the city police actively handling the small peddler, and being provided with legal assistance from this Department in such larger cases as they encountered, and with the arrest by the Mounted Police of not only the known local traffickers of larger calibre, but some whose activities involved the connivance of confederates in other cities, who were in turn arrested, a most radical change in the situation has been effected, and for months past illicit narcotics have been practically unobtainable.

The principal trafficker in the Winnipeg district was a man named Toole, and the ramifications of the various cases linked with his had, in one instance, a tragic ending. Toole, some time prior to his arrest, doubtless felt that conditions in Winnipeg were getting too hot to justify his retaining large quantities of narcotics in his possession. At any rate he conceived and carried out the idea of hiding thirty ounce packets of heroin in two inner tire tubes, and caching same under a culvert some eight miles from Winnipeg. By this scheme he could visit his cache nightly, extract therefrom sufficient to cover his sales, and only retain possession thereof for a period sufficient to arrange for delivery to his customers. Through the exploration of the culvert by a dog, the cache was discovered by two farmers, who naturally did not recognize the contents as being narcotics. One of them despatched some to a chemist for analysis, while the other handed some to the manager of a grocery in Winnipeg. This man in turn eventually claimed that it was stolen from him, but at any rate it came into the possession of a young man who, with his brother, commenced to sell same at prices far in excess of the licit value. These sales came to the knowledge of the Mounted Police, who, within a short time, had arrested the two brothers, another man involved with them, and the manager of the grocery. The latter was evidently much worried at his connection with the affair, and committed suicide before the trial, while the others were in due course sentenced to terms of imprisonment. Not long afterwards the arrest of Toole himself was effected, as a result of which fifteen more ounces of heroin were obtained, and Toole was sentenced to four years in the penitentiary.

Another well-known trafficker who had a previous police record, named Regan, was, as a result of co-operation with the Manitoba Provincial Police, arrested for selling narcotics, and sentenced to five years in the penitentiary. It was undoubtedly the arrest of men of this type, to whom stiff sentences were awarded, which has resulted in Winnipeg achieving a degree of freedom from narcotic trafficking which is remarkable, and which we hope will be maintained in future.

In *Saskatchewan* there were ten cases as compared with fifteen in the previous year, the possession and selling charges totalling six, as compared with eleven in 1928. The only two cases which varied in any way from the normal occurred in Saskatoon. In one of these a well-known criminal addict from Winnipeg broke into a drug store and stole a supply of narcotics. Prompt action on the part of the city police resulted in his arrest, and he was in due course sentenced to two years in the penitentiary. In the other case, although it terminated in Saskatoon, the previous investigation had involved a very large amount of work in the whole of the Prairie Provinces, the Okanagan valley and the Pacific coast, as the man involved, himself an addict and of good appear-

ance, with a previous pharmaceutical knowledge, had travelled through the whole of the West forging the names of local physicians to narcotic prescriptions. It proved to be a matter of some difficulty to locate him, although there were many evidences of his activities in various places which he had left. Upon being apprehended, however, he pleaded guilty and was sentenced to both fine and imprisonment.

In *Alberta* there were twelve cases, nine of which involved possession and selling, as compared with five in the previous year, four of which were in connection with possession and selling. None of these cases, which occurred in Calgary, Lethbridge, and Edmonton, were of any particular importance except that in one instance a man named Hamilton, having been sentenced to eighteen months' imprisonment for illegal possession, was transferred to Ponoka Asylum for cure of drug addiction, from which institution he shortly afterwards escaped. Some considerable time later he was arrested for illegal possession in New Westminster, B.C., and it is strongly suspected that he was responsible for the theft of a supply of narcotics in a hospital at that point. On pleading guilty at the assizes, the chief justice, in view of his exceptionally long police record, sentenced him to seven years in the penitentiary.

In connection with a Chinese case at Calgary, in which a charge of illegal possession had been laid, the magistrate found the accused guilty of the lesser offence of "smoking opium", an offence with which he had not been charged. The case was taken to appeal and in due course the Chief Justice of Alberta reversed the magistrate's decision in a judgment which has been since extensively quoted, and in the course of which he stated:—

"The penalty for smoking is a fine up to \$100 or imprisonment up to three months or both, while the minimum punishment for the offence charged is 6 months imprisonment and a fine of \$200 with the further consequence of deportation.

"Counsel for accused says he has lived 23 years in Calgary and the consequence of deportation is a very serious one. There is no doubt that is true but the responsibility for that is not on the magistrate or the court but on Parliament and it cannot be taken into consideration in the determination of a pure question of law.

"Equally the responsibility is on the prosecution and not on the court as to what charges will be laid In this case the offence charged was proved

"In the second place 'smoking' is not included in 'having in possession'. It may perhaps be said that one cannot smoke without having in possession but certainly one can have in possession without smoking. Section 951 (of the Criminal Code) says nothing about a 'lesser offence' and that popular term must not be taken in the sense of a minor or less serious offence but it must be understood as meaning 'a part of the offence,' when used in reference to this section It seems clear, therefore, that the conclusion of the magistrate was not legally justified."

In so far as *British Columbia* is concerned, there was an increase to 295 convictions as compared with 200 in the preceding period. The increase, however, was in connection with opium smoking offences, thanks to the activities of the British Columbia Provincial Police and the City Police of Vancouver, while the Royal Canadian Mounted Police also encountered a considerable number of such cases in the course of developing others of a more important nature. The convictions for the possession and selling of narcotics decreased from 101 in 1928 to 82 during the period now under review, and in this type of case also we are indebted to the Vancouver City Police, not only for their hearty co-operation but for their efforts to control the trafficker.

The Pacific coast, which for so many years has presented very great difficulties to those endeavouring to control the illicit narcotic traffic, is now undoubtedly in very much better shape than ever before. Some extremely important cases involving many months of patient and clever investigation have been brought to a successful conclusion by the incarceration of those concerned, and I cannot speak too highly of the work of the Royal Canadian Mounted Police in that regard. The Commissioner of that force concentrated in Vancouver a number of specially selected men for an intensive course of training in narcotic

work, which proved to be a highly satisfactory arrangement. Conditions in Vancouver enabled the practical difficulties encountered to be demonstrated on the spot, and after several months of both practical and theoretical instruction the knowledge which they have acquired cannot fail to be of the utmost value in the various parts of Canada to which the men returned.

One of the most expert narcotic traffickers in Vancouver, in the person of a Chinese woman named Mrs. Nip Gar, was brought to book after more than a year's work, during which many purchases of narcotics were made under varying conditions until sufficient evidence had accumulated to conclusively prove her active participation in the traffic and the continuity of her operations. In this, as in many other cases, it is not in the public interest to go into much detail, but the importance of her operations was recognized by the court in imposing a sentence of seven years in the penitentiary.

A number of cases involving the active participation of members of the crews of boats plying to Vancouver from the Orient, both by such persons themselves selling or by conspiring to smuggle narcotics ashore, were encountered, and heavy sentences in due course imposed. One of the most interesting cases in this connection was that in which, with the co-operation of the Customs Department, it became known that narcotics were being smuggled off one of the "Empresses" by means of a small collapsible boat, which was hidden under one of the piers in Vancouver harbour. A white man was caught with a large number of cans of opium which he was in progress of smuggling ashore, and during the development of the case his partner became involved and two "opium jackets" specially prepared for smuggling opium off the ships were found. These men were sentenced to five and two years respectively in the penitentiary, and a short time later it became possible to learn in advance of the intentions of certain Chinamen on shore to arrange for a large quantity of opium to be delivered from an "Empress" with the connivance of a member of the crew. The plans made met with full measure of success, and as a result four Chinese were arrested. They were each sentenced to two years in the penitentiary, but as they appealed, this department, in two of the cases, feeling that the Chinamen involved were traffickers of long standing and that the offence was an exceptionally serious one, cross-appealed, with the result that their sentences were, by the British Columbia Court of Appeal, increased to five years.

Over twenty traffickers in all were given penitentiary terms in British Columbia during the year, and although the large majority were Chinese, one case involving a white man, in addition to those quoted above, was that of a barber working on one of the "Empresses," who was caught in the act of smuggling a large quantity of opium ashore in a club bag with a false bottom. He was sentenced to a three-year term. Other cases involving penitentiary sentences were encountered in Kamloops, Ladysmith, New Westminster, Victoria, Agassiz and Fernie, and I can but repeat the observation made last year, namely, that there are now undoubtedly very many more of these larger traffickers inside the penitentiary than there are at large. The price of opium has increased three hundred per cent in the past three years on the Pacific coast, which is in itself a good indication of the progress made. At the same time, however, it has to be remembered that, with a much higher price obtaining, the profits accruing from a successful deal are correspondingly greater, and this factor undoubtedly will continue to tempt others to embark in the traffic and run the risk of detection, with the heavy punishments accruing thereto.

Our relations with the narcotic authorities of the United States have continued to be most cordial; the closest co-operation exists not only theoretically but actually as a matter of daily routine, and in very many ways the advantage of combined effort on both sides of the international boundary line has been abundantly proven. The League of Nations recently drew the attention of the

nations of the world to the special treaty existing between the United States and Canada with regard to co-operation, exchange of information, extradition of prisoners, etc., in connection with narcotic matters, and invited them to emulate the example set. It is, therefore, with particular pleasure that I record the great advantages accruing from the above arrangement. During the year an opportunity was also accorded of a personal exchange of views, information, etc., with the British authorities, and the Narcotic Services of both countries are now in constant touch.

Although I have particularly mentioned the work of the Royal Canadian Mounted Police in British Columbia, I desire to record our great appreciation of their most valuable services in connection with narcotic matters throughout Canada as a whole. The co-operation between that force and the Narcotic Division is extremely close, and we have nothing but praise for the manner in which investigations are carried out, many of which involve the exercise of patience and ingenuity to a remarkable degree.

With a new and improved Narcotic Act at our disposal; with a large number of Appeal Court decisions obtained which cannot fail to act as valuable precedents in the future, and with greatly improved methods of co-ordination of activities both in Canada and outside the borders of this country; with an increasing improvement in the illicit situation throughout Canada as a whole, and with a prospect of international action with a view to controlling the illicit manufacture of narcotics, it is felt that the results of the year's work can be looked upon with satisfaction, and that we are reasonably equipped to carry on the work of narcotic control in the future.

TABLE 1A.—DETAILS OF CONVICTIONS UNDER THE OPIUM AND NARCOTIC DRUG ACT FOR THE JUDICIAL YEAR ENDED SEPTEMBER 30, 1929

Province	Nature of Offence								Totals
	Possession of drugs	Selling or distributing	Importing without a license	Smoking opium	Frequenting opium den	Possession of pipes, etc.	Obtaining drugs from more than one physician	Professional cases under Secs. 5, 6 and 9	
Prince Edward Island ..									
Nova Scotia ..						2			2
New Brunswick ..									
Quebec ..	18	1		31	86	12		3	151
Ontario ..	50	5		9	9	5			78
Manitoba ..	17	1					1		19
Saskatchewan ..	6								10
Alberta ..	8	1		1	1			1	12
British Columbia ..	51	30	1	62	127	24			295
Total ..	150	38	1	103	223	47	1	4	567

CONVICTIONS—YEARS ENDED SEPTEMBER 30, 1925 AND 1929

Year	Nature of Offence								Totals
	Possession of drugs	Selling or distributing	Importing without a license	Smoking opium	Frequenting opium den	Possession of pipes, etc.	Obtaining drugs from more than one physician	Professional cases under Secs. 5, 6 and 9	
1925 ..	381	55		139	208			52	835
1926 ..	302	33		149	180			79	743
1927 ..	163	37		85	81			124	490
1928 ..	183	52		69	69	28		29	430
1929 ..	150	38	1	103	223	47	1	4	567

TABLE 1B.—DETAILS OF CONVICTIONS UNDER THE OPIUM AND NARCOTIC DRUG ACT FOR THE JUDICIAL YEAR ENDED SEPTEMBER 30, 1929

Province	Total Convictions		Sentence		Racial Origin							
	Male	Female	Option of a fine	Committed without option	British and American	Chinese	French	Italian	Polish	Russian	Hindu	Total
Prince Edward Island.....												
Nova Scotia.....	2		2			1				1		2
New Brunswick.....												
Quebec.....	149	2	130	21	17	133				1		151
Ontario.....	78		23	55	36	35	1	5		1		78
Manitoba.....	17	2	1	18	16	1			1	1		19
Saskatchewan.....	10		4	6	5	5						10
Alberta.....	11	1	3	9	6	6						12
British Columbia.....	290	5	212	83	24	269			1		1	295
Totals.....	557	10	375	192	104	450	1	5	2	4	1	567

DETAILS OF SENTENCE—YEARS ENDED SEPTEMBER 30, 1925 TO 1929

Year	Given option of a fine	Jailed with no option
1925.....		
1926.....	546	280
1927.....	474	263
1928.....	327	159
1929.....	190	240
	375	192

TABLE No. 2

(a) NUMBER OF IMPORT AND EXPORT LICENCES ISSUED DURING THE CALENDAR YEAR 1929

Country from which Imported	Number of licences issued
United States of America	175 (a)
France	49 (b)
England	27
Germany	7
Netherlands	1
Switzerland	2
Total	261

(a) One cancelled at request of importer.

(b) Three cancelled at request of importer.

Country to which Exported	Number of licences issued
Newfoundland	88*
France	1
Total	89

* Five licences cancelled at request of the exporter.

(b) NUMBER OF WHOLESALE AND RETAIL DRUGGISTS' LICENCES ISSUED FOR THE CALENDAR YEAR 1929

Wholesale druggists	112
Retail druggists	23

TABLE No. 3.—AMOUNT OF NARCOTIC DRUGS IMPORTED INTO CANADA DURING THE FISCAL YEARS ENDED MARCH 31, 1919 TO 1928, AND FROM APRIL 1, 1928 TO DECEMBER 31, 1928, AND FOR CALENDAR YEAR 1929

	Cocaine		Morphine	Crude opium		---		Cocaine	Morphine	Crude opium
	oz.	lb.	oz.	lb.	lb.			oz.	oz.	lb.
1918-1919.....	12,333	30,087	1924-1925.....		34,262			1,589	7,424	655
1919-1920.....	6,968	28,198	1925-1926.....		13,626			2,633	8,651	810
1920-1921.....	3,310	12,214	1926-1927.....		2,953			2,659	8,873	1,020
1921-1922.....	2,952	8,774	1927-1928.....		1,700			2,967	6,926	970
1922-1923.....	3,330	10,998	1928 (April 1 to December 31).....		1,373			1,530	4,553	629
1923-1924.....	1,561	7,092	1929 (Calendar year).....		845			2,180	7,025	1,145

NOTE.—Morphine includes diacetyl-morphine (heroin).
Statistics now prepared by calendar years to conform to requirements of the International Opium Convention.

TABLE No. 3A.—AMOUNT OF NARCOTIC DRUGS IMPORTED INTO CANADA DURING THE CALENDAR YEAR 1929

Country imported from	Opium			Morphine		Heroin		Cocaine		Coca leaves	Eucaine prep.	Galenical pre- parations	Indian hemp
	Crude	Pow- dered	Pre- paration	Alkaloids of	Straight	Pre- paration	Straight	Pre- paration					
Great Britain.....	lb.	lb.	302	oz.	oz.	oz.	oz.	oz.	oz.	lb.	oz.	oz.	lb.
France.....	1,145			8.97	4,390.08	35.79	872.92	0.04	210		1.41	90.42	
United States.....				46.92		11.89	2.65	1.14					
Germany.....				55.71	5	77.25			10.42				50
Switzerland.....					875		50		1,600	100			
Netherlands.....					700				360				
Total.....	1,145	302		111.60	5,970.08	124.93	929.57	1.18	2,170	100	1.41	90.42	50

NOTE.—*Straight* indicates pure drug. *Preparation* indicates pure drug contained in other non-narcotic drugs.

TABLE No. 4

In addition to the amount of narcotics imported during the calendar year 1929, the following amounts of seized drugs were disposed of to licenced wholesalers in Canada:—

Drug	Quantity lbs. ozs.
Gum opium	11 15
Cocaine	310.7
Heroin (diacetyl-morphine)	91.9
Morphine hydrochloride	127.6
Morphine sulphate	85.7

TABLE No. 5.—SUMMARY OF NARCOTIC DRUGS EXPORTED FROM CANADA, DURING THE CALENDAR YEAR 1929

Country exported to	Morphine		Heroin		Cocaine		Opium contained in tinctures, pills, preparations, etc.	Galenical preparations
	*Straight	†Preparation	Straight	Preparation	Straight	Preparation		
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
Newfoundland.....	14.37	11.76	1.61	4.23	1	0.59	51.86	10.78
France.....						0.46		
Total.....	14.37	11.76	1.61	4.23	1	1.05	51.86	10.78

*Straight: Pure drug.

†Preparations: Containing narcotics with other non-narcotic drugs.

TABLE No. 6.—NUMBER OF ALIENS DEPORTED FROM CANADA, HAVING BEEN CONVICTED OF OFFENCES UNDER THE OPIUM AND NARCOTIC DRUG ACT, DURING THE EIGHT CALENDAR YEARS ENDED DECEMBER 31, 1929

Nationality	1922	1923	1924	1925	1926	1927	1928	1929	Totals
Chinese.....	4	92	125	88	86	55	69	59	578
Czecho-Slovak.....				1					1
East Indian.....			1	1		1			1
English.....		2							4
French.....		2		1					4
Greek.....		1						1	1
Irish.....		1							1
Italian.....		2	2	2			1		7
Japanese.....			1				1		2
Philippino.....		1							1
Polish.....									1
Roumanian.....								1	1
Scotch.....				2	1				1
Swedish.....			1				1		2
Swiss.....							1	1	3
United States citizens....	11	29	24	24	10	13	5	6	122
Totals.....	15	130	154	119	97	69	78	69	731

TABLE No. 7.—AMOUNT OF NARCOTIC DRUGS SEIZED OR RECEIVED FROM ILLICIT CHANNELS DURING THE CALENDAR YEAR 1929

Opium—	lbs.	ozs.	grs.
Opium, crude	34	5	
Opium, smoking	10	14	275
Opium seconds (Yen-She)	9	11	396
939 tins of smoking opium containing	469	8	
14 tins of smoking opium (2 oz.) total	1	12	
53 tins of smoking opium (1 oz.) total	3	5	
247 jars of smoking opium (1 oz.) total	15	7	
247 jars of smoking opium (1 oz.) total	15	7	
*Decks of smoking opium	1,549		
Decks of Yen-She (Seconds)	65		
Pills of opium	878		
Tincture of opium		3½	
Pills (Anti-opium smoking), packages	2,115		
Pills (Anti-opium smoking), small bottles	142		
Cubes (Anti-opium smoking)	249		
Morphine—			
Morphine		35	131
*Decks of morphine	128		
Cubes of morphine (Approx. 3 grs. each)	1,089		
Tablets	1,486		
Capsules of morphine (3 grs. each)	44		
Cocaine—			
Cocaine		2	212
*Decks of cocaine	111		
Tablets of cocaine	9		
Capsules of cocaine (3 grs. each)	4		
Heroin (Diacetylmorphine)—			
Heroin		4	223
*Decks of heroin	16		
Tablets of heroin	122,860		
Alleged drugs (miscellaneous) including morphine, cocaine and heroin—			
Drugs alleged		32	27
*Decks	90		
Tablets and pills	494		
Paraphernalia—			
Opium lamps	187		
Opium lamp globes	85		
Opium smoking pipes	264		
Opium pipe bowls	162		
Opium scales (Chinese)	46		
Scrapers, opium pipe	147		
Yen-Hocks (needles)	723		
Opium tins (empty)	28		
Syringes (improvised)	30		
Syringes (hypodermic, metal)	4		
Scissors	87		
Connections for opium pipe bowls	254		
Head rests	6		
Mouth pieces for opium pipes	28		

* Deck is a small package containing from two to five grains of drugs.

THE PROPRIETARY OR PATENT MEDICINE DIVISION

The Proprietary or Patent Medicine Act controls the manufacture, sale and importation of every secret formula non-pharmacopœial medicine permitted sale in Canada. Each such medicine is given a registration number, and its sale is reviewed and licensed annually. Applications for registration are carefully considered, having regard to the drugs used in the composition of the medicine; the purpose for which the product is recommended; the limitations placed on the use of potent drugs in its composition; the presence of alcohol in quantity exceeding 2½ per cent by volume, and the fact that no false, misleading, exaggerated claims or statements shall, in any manner, be made in respect of such article.

The activities of the Division during the past fiscal year comprised in particular a review of the registration of 5,131 medicinals; the registering of 554 new preparations, and licensing a total of 5,685; the examination and criticism of 731 labels, 200 cartons, 134 samples as labelled and found on the market, and 249 newspaper and other collateral advertisements. The Advisory Board approved 82 alcoholic medicinal preparations as registerable, and rejected 26 as insufficiently medicated.

During the period referred to the division continued to give attention to all infractions of the law with the object of assuring the Canadian public of a truthfully labelled proprietary or patent medicine supply, and assisting well informed vendors and manufacturers to sell their preparations under truthful statements without being forced into unfair competition with medicinals put out under false, misleading and exaggerated claims. Falsely labelled medicines for self-administration by the public constitute a grave danger, not in so much that they may prove injurious, as that those afflicted with some serious disease may rely upon them, and neglect approved scientific treatment until it is too late to control a malady which might have responded to proper treatment at the outset.

Much has been done to protect the public from the exploiters of new discoveries in medical science and the sciences related thereto, put forward under the guise of proprietary medicines. These schemes are generally frustrated at their inception through the control which the department exercises over the business of the manufacturer, and the advertisements of the modern advertising expert.

In the experience of the department, and in the light of further revealed scientific knowledge respecting the action and use of drugs, it has been found necessary to add the following drugs to the schedule of the Act, in order that restriction may be placed on their use. Other potent drugs are being investigated:—

- Phenobarbital,
- Beta Naphthol,
- Ephedrine Salts,
- Phosphorus,
- Scopolamine,
- Hyoscine,
- Butyn,
- Benzocaine,
- Compounds of Antimony.

Full co-operation was had with the administrators of related legislation.

A number of shipments of proprietary medicines from foreign ports were refused entry into Canada for improper labelling, and considerable quantities of medicinals placed on the Canadian market were seized for non-conformity with requirements.

PUBLIC HEALTH ENGINEERING DIVISION

Work carried on under this heading is by virtue of the votes known as "Public Works Health Act" and "Pollution of the Inland Waters of Canada."

Co-operative work was done in collaboration with representatives of the United States Public Health Service, in the districts adjoining the international boundary, regarding the pollution of boundary waters and the enforcement of certain regulations respecting drinking and culinary water supplies for common carriers engaged in international traffic.

This co-operative arrangement with the United States Public Health Service is of mutual benefit to the people of both countries. Under this arrangement more accurate information is available regarding vessel movements, water supplies, laboratory analyses, and sanitary conditions.

The necessity for co-operation among the nations of the world in preventing the spread of disease dangerous to public health has been more widely recognized during recent years than formerly. Experience has demonstrated that disease does not regard international boundaries, and the advance in the facilities for rapid transportation increases the danger of the introduction and spread of communicable disease.

Assistance was given to other departments in regard to sanitary facilities, water supplies, bathing beaches, etc., and their pollution by human wastes. The public health aspect of the sewage disposal problem involves more particularly the protection of bathing beaches, the use of waters for recreational purposes, and its use as a source of water supply. Pathogenic bacteria are dangerous to bathers and to persons drinking water which has not been subjected to some form of adequate purification.

In co-operation with officials of the Department of Public Works proposals for waterworks extensions and sewer outfalls were scrutinized for the municipalities of Toronto and Ford City, Ont., and Vancouver, B.C.

Conferences were had with officials responsible for sanitation on the railways of Canada, and data supplied regarding the quality of the water supplies available and general sanitary conditions on railway trains engaged in international and interprovincial traffic, in response to which there has been a definite improvement in the quality of the drinking and culinary water supplies in use aboard such common carriers.

Co-operative work was carried on with health officials in the provinces of Ontario, Quebec, Manitoba, Saskatchewan, Alberta, and British Columbia, and it is expected that it will be possible to extend this co-operation to the health officials in the provinces of Prince Edward Island, Nova Scotia, and New Brunswick with the appointment of a district engineer for the Atlantic district.

On request six National parks were visited and subsequently recommendations made concerning sanitary conditions therein. As the great National parks become more widely known, the number of visitors, railway travellers and automobile tourists, is rapidly increasing, and attendant problems of sanitation present themselves for solution. It can readily be seen that the thousands of tourists who visit the parks each year would, if they were to contract disease through insanitary conditions, carry the infection to all parts of the Dominion and the United States.

In co-operation with the Provincial Department of Health of Ontario, a preliminary investigation was made of a complaint from the State Department of Health of Minnesota, that the international waters of Rainy river were being polluted by sewage from Canadian sources.

Due to a combination of circumstances, the Great Lakes being bodies of fresh water that have been used extensively untreated for drinking and culinary purposes on vessels, and the adjoining cities and the lake-navigating vessels dispose of their wastes into these lakes, it is necessary to supervise vessel drinking and culinary water supplies and water supply systems very thoroughly and frequently.

Special consideration was given to the source of water supply of vessels tied up for the winter and fitting out either in the fall or early spring. Carelessness in regard to this matter has been definitely demonstrated on several occasions to have undesirable results.

Thirty-five examinations were made of the sources from which drinking and culinary water supplies were obtained for use aboard common carriers engaged in international and interprovincial traffic.

In accordance with the regulations concerning common carriers engaged in such traffic, 1,503 inspections were made of passenger trains engaged in interprovincial and international traffic, to check the quality of drinking and culinary water available. Inspections by health officials of vessels navigating on the inland waters of Canada numbered 1,987.

In order that the problem might be handled from all sides, it is customary to carry on an educational campaign in the winter seasons when the navigating officers and engineers are away from the boats. In the mid-winter season lectures on the subject of safe water supplies were given at various centres where students qualify for marine certificates. It is usual to give notice in advance that these lectures are open to all persons interested. The lectures consist of a talk on the subject of water supplies in addition to which moving pictures are shown indicating the life that is present in water supplies that have been contaminated by sewage.

Inspections were made and reports prepared concerning conditions on branch lines of railways under construction as provided under the Public Works Health Act. (This includes a special investigation of the typhoid outbreak on the Hudson Bay Railway.)

The application of the regulations concerning drinking and culinary water was extended to vessels on lake Winnipeg. Tourist traffic on this lake is handled largely by two steamship companies operating passenger vessels out of Selkirk, Man. Owing to the severe contamination of the Red River by sewage, the source of the drinking and culinary water supply at Selkirk was carefully investigated and subsequently very much improved.

In addition to the physical examination of water supplies for and on common carriers, information and advice of a technical nature and copies of reports concerning water supplies and sanitation were supplied to transportation companies.

Plans of Canadian passenger and freight vessels under construction at shipyards in both Great Britain and Canada were reviewed and, if in compliance with the regulations, approved as regards drinking and culinary water systems. Features of design of drinking and culinary water systems and sewage and garbage disposal methods were brought to the personal attention of transportation officials, so that in the future satisfactory water supply and sewage and garbage disposal systems may be installed.

Correspondence and interviews took place with health and transportation officials and other persons concerned regarding the certification of water supplies available at various points. In this connection visits were made to many waterworks to study in detail the facilities available for the supply of drinking and culinary water at these sources of supply.

Throughout the season transportation companies are supplied regularly with copies of water analyses reports, and wherever it seems advisable, attention of the management of these organizations is drawn to potential public health hazards.

The importance of a pure water supply for vessels is evidenced by the number of passengers carried. During the season of 1929 the larger steamships and ferries that ply into Canadian ports on the inland water of Canada carried 23,231,381 persons. The corresponding passenger movement on vessels of United States ownership was 24,104,992 during 1928.

The popularity of water from safe shore sources with steamship companies since control has been exercised by this department is well illustrated at Montreal. Hydrants are located at intervals along the water front and several crews of men are employed during the navigation season filling orders for water for boilers and drinking water tanks on vessels about to sail. A motor truck is used to convey lengths of hose from the drying towers to the vessels. During 1928 a total of 32,875,000 gallons of fresh water was supplied to vessels, being an increase of 18,500,000 gallons over the quantity of water so supplied in 1923.

One of the features for careful attention in the public health supervision of railways is the quality of the drinking and culinary water supplies. Just how important this feature becomes is emphasized by the fact that during 1928 railways in Canada carried 40,592,792 passengers, in addition to the thousands of men who were employed in the maintenance and operation of these railways.

It was possible to give more attention to railroad and coachyard sanitation than in previous years. A very distinct attitude of co-operation exists in dealing with railroad officials and a very encouraging appreciation of the importance of railroad sanitation is manifest.

By means of a co-operative arrangement with the Pullman Company and the railways, this office is supplied with lists of all special gatherings or conventions, special mention being made of those where sleeping cars will be parked for occupancy in lieu of hotel accommodation. It is proposed to present details of railway sanitation in pamphlet form.

A river, as a natural drainage channel customarily receives the discharge of the liquid wastes of communities along its banks, these wastes comprising sewage from human beings and wastes from industries. The natural run-off into streams carries with it organic matter from fields, dead vegetation, detritus, and the like in addition to the sewage. Nature provides for the conversion of this organic matter into mineral matter, and then into organic life which serves for fish food. An important element necessary for this conversion is oxygen. The water of the stream and some of its organisms supply oxygen. The water absorbs it from the air at falls, rapids, and from quiescent, as well as wind-agitated surfaces and receives additional oxygen from tributary streams and from chlorophyl-bearing plant life. Where the conditions of sewage discharge and stream flow are such that sludge banks do not form, and where the organic matter does not use oxygen faster than it can be supplied, oxidation proceeds naturally and without due disturbance. The organic matter is broken down by bacterial action and mineralized, the products stimulating the growth of small plants and animals which become food for fish. Thus the biology, the fish life, and the oxygen balance are indices of the condition of the river. If the oxygen in the river water is greatly depleted, many kinds of fish suffer or are unable to exist unless they can escape to purer water. It is evident that when a stream is covered with ice there is very little opportunity for reaction and the oxygen content may be reduced to a minimum.

It is recognized that surface waters cannot be maintained in a condition suitable for drinking purposes without proper purification. This is due to the fact that there are along the shores of nearly every lake or river many sources of contamination which from a practical standpoint are beyond control. It is also realized that a grossly polluted stream adjacent to any community constitutes a menace to public health in that it may be, and often is, used for drinking purposes by people in the community and by strangers who may not know that the stream is unfit for such use.

There are certain areas in the grossly polluted sections of a river, especially near the sewer outlets, where scum such as oil and grease and floating solid material discharged with the sewage and industrial wastes can be seen on the surface of the water. Undoubtedly some of this material is infected with disease producing organisms. It is reasonable to conclude that contact with this material, through wading or bathing might be dangerous to health, especially in the summer months.

It is a well known fact that where dairy herds are permitted to wade in grossly polluted waters the contaminating material adhering to the udders may get into the milk at the time of milking and so infect the milk supply, unless the milk is subsequently pasteurized, before delivery to the consumer.

Investigations conducted in Minnesota, Michigan, and Manitoba indicate that fish may become infected by the eggs of the fish tapeworm through the pollution of natural waters with human discharges. Recent investigations show that fish in some natural waters in northern Minnesota, Michigan, and Manitoba are infected. An increasing number of human infections in these regions are

being brought to light. The importance of protecting natural waters from pollution by sewage containing human discharges from the standpoint of infection with fish tapeworm should not be overlooked.

Pollution of waters has an effect upon the wealth of any community and, therefore, the economic phases of the problem cannot be ignored. Some of these, such as depreciation in property values, loss to the commercial fishing industry, etc., can be estimated within reasonable limits and even roughly measured in dollars and cents.

It is difficult to measure in money value the effect of pollution from an aesthetic standpoint.

In addition to the public health hazard of attempting to purify highly polluted waters, the possibility that such waters may develop other objectionable characteristics, such as taste and odour, is greater than would be the case with water from relatively unpolluted rivers or lakes.

From comparison of the charts showing typhoid fever incidence and quality of drinking water, there is apparently a very close relation between the number of cases of typhoid fever among members of the crews of Great Lakes vessels and the quality of the water supplied on these vessels.

How typhoid fever can be controlled is well illustrated by the record for the calendar year 1928 in the United States. Here a new low death rate for this disease is shown. At the beginning of the present century typhoid fever was responsible for 34 deaths per 100,000 of the population. This mortality has decreased until in 1928, forty-three states reported 5,425 deaths, giving a death rate of 4.8 per 100,000. This reduction of 86 per cent in the death rate from typhoid fever has been brought about largely through the practical application of the principles of modern sanitary science.

Most cases of typhoid fever are contracted during the summer and early fall. From this fact the disease is often called "vacation typhoid." The infection is conveyed through milk, water or food, and the germs of the disease must be swallowed before a person becomes ill. A serious menace to vacationists is the drinking of water or milk, or the eating of food which may have become contaminated by body discharges from a case or a carrier. A carrier is defined as a person who, although not having any symptoms, harbours within his body, and discharges from time to time, the germs of the disease. From three to five per cent of persons who recover from typhoid fever remain carriers for an indefinite time. Such persons are a menace to all who partake of food handled or prepared by them.

Fortunately medical science has prepared a method by which illness with typhoid fever can be prevented. A simple treatment with anti-typhoid vaccine will protect a person for a period of two years and a half. This information is presented at this time to give opportunity to every one to become protected before the vacation season opens. All who travel, and especially those who are planning to camp out during the coming vacation season, should avail themselves of this protection for the menace of typhoid fever is always present.

The science of public health does not stop at interprovincial or international boundary lines and it is only through the exchange of scientific knowledge and practical ideas that we may hope to attain the best living conditions in Canada.

HEALTH AND PUBLIC WORKS

The Public Works Health Act and Regulations, R.S. Canada 135, section 1, first enacted in 1899, has been in force for over thirty years, with the consequence that changing conditions have made it expedient to revise the act and the regulations thereunder so as to be in line with the times.

During the past year inspections and reports as provided in the Public Works Health Act were made at thirteen different points concerning sanitary conditions on branch lines of railways and other federal public works from Alberta on the west to Nova Scotia on the east. This includes a special investigation of an outbreak of typhoid fever in construction camps along the line of the Hudson Bay Railway.

Primary attention was given to the enforcement of the clauses of the Act that provide for medical treatment, temporary hospitals and a definite number of doctors on each construction work in direct proportion to the number of men employed on such construction work.

All sorts of insanitary conditions were found to have existed prior to the inspections and measures had to be taken for the correction of these undesirable conditions. Drinking water supplies varied in quality from good to dangerous. Sewage and garbage disposal methods were also found to be included in a similar category. While matters such as fly screening of kitchens and dining rooms and ventilation of sleeping quarters had to receive careful attention.

The total number of cases of typhoid fever reported as originating aboard Canadian vessels navigating the waters of lakes Superior, Huron, Erie, and Ontario during 1929 was three, as indicated in the attached schedule.

During the same period the number of cases of typhoid fever reported as originating from vessels navigating the St. Lawrence river was eleven.

A report from the representative of the United States Public Health Service states that the number of typhoid fever cases reported from Great Lakes vessels of United States registry during the season of navigation of 1929 was nine.

TABLE 1.—TYPHOID FEVER PATIENTS FROM GREAT LAKES STEAMSHIPS

Steamship	Owners	Number of cases reported	From where reported	Date	Remarks, patient's name, etc.
<i>Puckasaw</i>	Newaygo Timber Co., Ltd., Port Arthur, Ont.	1	Dr. G. L. Sparks, District Officer of Health, Fort William, Ont.	.....	Capt. James Gerow. Patient died.
<i>Smith</i>	Canadian Towing and Wreck- ing Co.	1	Winnipeg General Hospital.....	Oct. 6, 1929	Jabie Smith.
<i>Yorkton</i>	Mathews Steamship Co.....	1	St. Luke's Hospital, Montreal.....	Nov. 27, 1929	Sam Tobin.

TABLE 2.—TYPHOID FEVER PATIENTS FROM VESSELS ON THE ST. LAWRENCE RIVER

Steamship	Owners	Number of cases reported	From where reported	Date	Remarks, patient's name, etc.
<i>Mercier</i>	Quebec and St. Lawrence Navigation Co., Ltd.	1	Marine Hospital, Boston.....	April 15, 1929	Rene Desurault.
<i>Barge No. 1</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	May 24, 1929	Joseph LeBoeuf.
<i>Barge No. 1</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	May 27, 1929	Augustine Gallibois.
<i>Barge No. 3</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	June 15, 1929	Romeo Frechette.
<i>Dredge No. 8</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	June 18, 1929	Florian Fortin.
<i>Dredge No. 16</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	Aug. 23, 1929	Joseph St. Pierre.
<i>Dredge No. 16</i>	Department of Marine.....	1	Dr. A. Belanger, Lauzon.....	Sept. 8, 1929	Jules Roy.
<i>Barge No. 4</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	Sept. 30, 1929	Philippe Tremblay, Para-Typhoid A.
<i>Barge No. 4</i>	Department of Marine.....	1	Hotel Dieu, Quebec.....	Oct. 7, 1929	Corentin Audet.
<i>Valley Camp</i>	Great Lakes Transportation Co., Midland, Ont.	1	J. R. Menzies.....	Oct. 30, 1929	Antonio Guimont, Para-Typhoid B.
<i>Mikula</i>	Department of Marine.....	1	Jeffrey Hale Hospital.....	Mar. —, 1930	Shipkeeper.
<i>Mikula</i>	Department of Marine.....	1	Quebec General Hospital.....	Feb. 28, 1930	W. Mullins.
				Mar. 28, 1930	P. Desrochers.

TABLE 3.—CASES OF TYPHOID FEVER REPORTED FROM GREAT LAKES PORTS

Municipality	Year	Number of		Remarks, increase, etc.
		Cases	Deaths	
Montreal.....	1929	.....	.....	.....
	1928	.....	48	One from lake steamship.
	1927	5, 131	592	Epidemic due to milk.
	1926	93	49	4 from ss. <i>Lake Gaither</i> of U.S. ownership.
	1925	140	52	5 directly from steamships.
	1924	150	51	.....
	1923	165	47	4 directly from steamships.
	1922	271	63	.....
	1921	187	62	.....
Cornwall.....	1929	.....	.....	None from lake vessels.
Kingston.....	1929	4	.....	None from lake vessels.
	1928	.....	.....	None from lake vessels.
	1927	.....	.....	None from lake vessels.
	1926	.....	.....	2 directly from steamships.
	1924	6	.....	All from outside of Kingston.
	1923	9	2	1 directly from steamships; 6 originated outside of Kingston.
	1922	A few	.....	Report of Dr. Williamson.
	1921	6	.....	Report of Dr. Williamson.
Toronto.....	1929	.....	.....	None from lake vessels.
	1928	32	.....	None from lake steamships; 26 originated outside of city.
	1927	.....	.....	4 from steamships.
	1926	.....	.....	3 from ss. <i>Lake Gaither</i> , of U.S. ownership.
	1925	43	9	21 contracted infection outside of city.
	1924	39	.....	29 originated outside of city.
	1923	85	.....	2 directly from steamships. 66 originated outside of city.
Hamilton.....	1929	2	.....	None from lake vessels.
	1928	.....	.....	None from lake vessels.
	1927	3	.....	Probably infected outside of the city.
	1926	1	.....	.....
	1925	18	.....	10 were infected outside of the city.
	1924	13	.....	6 from outside of the city.
	1923	13	4	9 cases infected outside of city.
	1922	21	1	.....
St. Catharines.....	1921	21	3	.....
	1929	4	.....	None from lake vessels; all contracted away from city.
	1928	.....	.....	1 from lake vessel.
	1927	.....	.....	1 from lake vessel.
	1923	13	2	1 from steamship; increase of 11.
Welland.....	1922	2	1	.....
	1921	13	.....	All contracted outside of city.
	1929	.....	.....	None from lake vessels.
	1928	4	.....	1 from lake vessel.
	1927	.....	.....	.....
Windsor.....	1926	.....	.....	None from lake vessels.
	1925	20	5	8 originated outside of Welland.
	1924	19	.....	2 directly from steamships.
	1923	10	.....	3 directly from steamships.
	1922	14	.....	3 directly from steamships.
	1921	4	.....	.....
	1929	12	.....	None from steamships.
Sarnia.....	1928	2	.....	None from steamships.
	1926	.....	.....	1 case from tug, Reid Wrecking Co.
	1925	6	.....	1 case from steamship <i>Sarnolite</i> .
	1924	10	2	None.
	1923	2	.....	Both being employees of vessel companies.
	1922	5	.....	4 directly from steamships.
	1921	4	.....	3 directly from steamships.

TABLE 3.—CASES OF TYPHOID FEVER REPORTED FROM GREAT LAKES PORTS—*Con.*

Municipality	Year	Number of		Remarks, increase, etc.
		Cases	Deaths	
Collingwood.....	1929	1	.....	None from lake vessels.
	1928	.....	.....	None from lake vessels.
	1927	.....	.....	None from lake vessels.
	1926	.....	.....	1 from Great Lakes vessel.
	1925	.....	.....	None from steamships.
	1924	.....	.....	None from steamships.
	1923	1	.....	1 directly from vessel.
	1922	2	.....	2 from steamships.
Owen Sound.....	1929	.....	.....	None from lake vessels.
	1928	.....	.....	None from steamships.
	1927	.....	.....	None from steamships.
	1926	.....	.....	.....
	1925	28	3	An epidemic of typhoid fever in the city. One from lake vessel.
	1924	8	.....	6 from steamships.
Midland.....	1928	.....	.....	2 from steamships.
	1925	.....	.....	2 cases from Great Lakes vessels.
	1924	2	.....	Both from Great Lakes steamships.
	1923	11	.....	Increase 10, 6 directly from steamships.
	1922	1	.....	1 from steamship.
	1921	3	.....	2 directly from steamships.
Parry Sound.....	1929	2	.....	None from lake vessels.
	1928	2	.....	None from lake vessels.
	1925	3	.....	.....
	1924	2	.....	These two cases infected outside of Parry Sound.
	1923	13	.....	This is for Parry Sound district, increase 3.
	1922	14	.....	.....
	1921	11	1	Very bad record. See report of Dr. E. George.
Sault Ste. Marie.....	1929	1	.....	None from steamships.
	1928	1	.....	None from steamships.
	1927	9	.....	None from steamships.
	1926	.....	.....	None from steamships.
	1925	3	.....	None from steamships.
	1924	1	.....	None from steamships. Decrease of 4.
	1923	5	.....	2 directly from steamships.
	1922	6	.....	Increase of 3, 2 directly from steamships.
	1921	3	.....	1 from steamship.
Port Arthur.....	1929	.....	.....	None from lake vessels.
	1928	2	.....	Child on ss. <i>Glenbogie</i> and man from ss. <i>Assiniboia</i> .
	1927	.....	.....	None from steamships.
	1926	.....	.....	.....
	1925	.....	.....	.....
	1924	.....	.....	.....
	1923	7	.....	Increase of 6, 4 originated outside of Port Arthur.
	1922	1	.....	.....
Fort William.....	1921	1	1	.....
	1929	.....	.....	1 from ss. <i>Puckasaw</i> and 1 from tug boat.
	1928	2	.....	1 from ss. <i>Islet Prince</i> .
	.....	.....	.....	1 from ss. <i>H. H. Brown</i> owned in Cleveland, U.S.A.
	1927	.....	.....	1 from tug <i>Strathmore</i> .
	1924	3	.....	3 directly from steamships.
	1923	27	1	Increase 6, 11 directly from steamships.
	1922	21	1	Increase 11, 2 directly from steamships.
	1921	10	1	3 directly from steamships.

TABLE 4.—TYPHOID STATISTICS—TYPHOID FEVER CASES REPORTED

Province	Year	Totals		Increases		Remarks
		Cases	Deaths	Cases	Deaths	
Nova Scotia.....	1928	122	23	65		Increase over 1927.
	1927	57				
	1926	43	16			
	1925	91	24		3	There was a total of 193 from enteritis and diarrhoea in 1925.
	1924	123	24	10		
	1923	113	33			
New Brunswick.....	1928	359	30	118	2	Epidemic in Madawaska.
	1927	241	28	118	8	
	1926	123	20			
	1925	187	17			
	1924	233	18			
	1923	402	28			
Quebec.....	1928	1,125	243			Montreal epidemic, typhoid and paratyphoid, 1927.
	1927	5,866	869			
	1926		256			
	1925		236			
	1924-25	562	316			Epidemic at St. Jerome.
	1923-24	893	334	60		
	1922-23	833	326			
Ontario.....	1928	715	44	146		Decrease.
	1927	851	35	286		
	1926	581	32	278	7	Decrease.
	1925	859	70			Outbreak at Courtright and Owen Sound.
	1924	833	76			Port Colborne epidemic.
	1923	1,663	212	1,087	85	Cochrane epidemic.
	1922	576		127		
Manitoba.....	1927	108				
	1926	128	18			
	1925		23			
	1924	81	20			
	1923	110	24			
	1920	192				
Winnipeg city.....	1928	10	2			8 received infection outside of the city. 13 while travelling outside of city. 9 contracted disease while travelling. 15 persons contracted typhoid while outside of city, 1923.
	1927	27	6			
	1926	66	8			
	1925	42	6			
	1924	36	6	10		
	1923	36	5			
Saskatchewan.....	1927	91	21			
	1926	115	30			
	1925	223	39	140	2	
	1924	83	37	68	26	Decrease.
	1923	151	63			
	1922	249	71	66		Increase over 1921.
Alberta.....	1927	91	21			Typhoid and paratyphoid.
	1926	115	30			
	1925	127	39			
	1924	98	37			
	1923	155	36			
	1922	169	50			
Edmonton.....	1927	21	6	11		17 patients from outside of city. Five of these died.
	1926	10				
	1925	17				
British Columbia.....	1928-29	39				Decrease of 45.
	1927-28	67	13			
	1926	64	15	45		
	1925	109	13			
	1924	109	15	30		
	1923	79	12			

MARINE HOSPITALS SERVICE

The medical and hospital treatment of sick and injured mariners has been continued without interruption since 1867 in conformity with the provisions of part five of the Canada Shipping Act (Chap. 186, R.S. 1927). The object of the Act is to provide medical and surgical attendance, and such other treatment as the cases require, and to protect the sea ports from being compelled to administer to those sick and injured mariners, not properly a charge against the municipality, who might be left at their ports by ships coming from foreign parts and meanwhile sailing away and evading responsibility.

With certain exceptions, a duty of two cents for every ton which the ship measures, registered tonnage, is levied and collected not more than three times during each calendar year on every ship arriving in any port in the provinces of Quebec, Nova Scotia, New Brunswick, Prince Edward Island or British Columbia from any place out of Canada or from a port in another province. Vessels engaged in the coasting trade of Canada, within the limits of one province, are not subject to the payment of the Sick Mariners' Dues. It is not compulsory for vessels employed exclusively in fishing to pay these dues, but the person in command may do so if he so desires, provided the vessel is registered in Canada and the first payment for the calendar year is made before the ship makes its first fishing voyage in the year.

All sick or injured mariners, belonging to vessels that have paid the Sick Mariners' Dues for the current calendar year, are entitled to gratuitous treatment if sent to a designated hospital or port physician in the provinces mentioned with a written recommendation from the master or person in command of the ship, endorsed as approved by the collector of customs.

The department operates two marine hospitals exclusively for the care and treatment of sick mariners—one at Sydney, N.S., and the other at Lunenburg, N.S. At other ports, provision is made as far as possible for their care and treatment at contract rates with the various local hospitals. Where there is no marine or designated hospital, the collector sends the sick mariner to a port physician. When considered necessary, the sick mariner may be sent to the nearest public hospital if there is one at a convenient distance and if not, he may be sent to a public or private boarding house.

Sick mariners' dues were collected from 3,316 vessels. The crews on these vessels numbered 96,590. The number of sick mariners treated was 6,069; 3,970 of these were admitted to hospitals and the number of days of hospital treatment was 57,589. The net amount of sick mariners' dues collected during the fiscal year was \$209,321.55 and the amount expended, including unpaid accounts on hand March 31, 1929, amounting to \$46,816.81 as the amount voted for 1928-29 was not sufficient, was \$253,649.31.

The following is a list of the hospitals in which sick mariners were given care and treatment and a statement of the diseases and injuries treated during the past fiscal year:—

Port	Name of Hospital
Nova Scotia—	
Amherst	Highland View
Antigonish	St. Martha's
Bridgewater	Dawson Memorial
Halifax	Victoria General
	Rockhead Minor Infections
	Halifax Infirmary
	Camp Hill
	City Health Board (Contagious Diseases)
	Tuberculosis
Kentville	Nova Scotia Sanatorium (Tuberculosis)
Lunenburg	Marine
North Sydney	Hamilton Memorial
Pictou	Pictou Cottage
Springhill	Springhill Cottage

Port	Name of Hospital
<i>Nova Scotia—Concluded</i>	
Sydney	Marine City of Sydney
Windsor	Payzant Memorial
Yarmouth	Yarmouth
<i>New Brunswick—</i>	
Bathurst	Gloucester
Campbellton	Hotel-Dieu
Chatham	Hotel-Dieu
Moncton	Moncton
Rexton	Rexton
St. John	General Public St. John County (Tuberculosis) Quarantine
St. Stephen	Chipman Memorial
Tracadie	Hotel-Dieu
<i>Prince Edward Island—</i>	
Charlottetown	Charlottetown Prince Edward Island
Summerside	Prince County
<i>Quebec—</i>	
Chicoutimi	Hotel-Dieu
Chandler	Providence
Gaspe	l'Hotel Dieu du Gaspe
Harrington	Harrington
Lachine	General
Lake Edward	Lake Edward Sanatorium (Tuberculosis)
Levis	Hotel-Dieu
Montreal	St. Luke's Montreal General Notre Dame Royal Victoria Convalescent Home Alexandria (Contagious Diseases) Hotel-Dieu Providence St. Paul's (Contagious Diseases) St. Mary's Grace Dart Home (Tuberculosis)
Quebec	Hotel-Dieu Jeffery Hale's St. Michel Archange Mastai Laval (Tuberculosis)
Rimouski	St. Joseph's
Riviere du Loup	St. Joseph's
Sorel	Hopital General
Sainte-Agathe-Des-Monts	Laurentian Sanatorium (Tuberculosis)
Three Rivers	Hopital Saint-Joseph
<i>British Columbia—</i>	
Anyox	Anyox General
Bella Bella	R. W. Large Memorial
Chemainus	Chemainus General
Cumberland	General
Nanaimo	Nanaimo
New Westminster	St. Mary's
Ocean Falls	Ocean Falls
Port Alice	Port Alice Private
Port Alberni	West Coast General
Powell River	St. Luke's
Prince Rupert	General
Stewart	Stewart General
Tranquille	Tranquille Sanatorium (Tuberculosis)
Vancouver	St. Paul's North Vancouver General Shaughnessy Vancouver General
Victoria	St. Joseph's Provincial Royal Jubilee

Emergency hospitals were operated at the following ports:—

Nova Scotia.—Canso, Clark's Harbour, Larry's River, Liverpool, Lockeport, Port Felix, Port Greville, Sherbrooke.

New Brunswick.—Beaver Harbour, Lameque, North Head.

Prince Edward Island.—Point Prim.

STATEMENT OF DISEASES OR INJURIES TREATED DURING THE YEAR 1929-30

General Diseases—

Alcoholism	12
Anaemia	11
Beri-Beri	1
Chicken-Pox	3
Cholera	3
Circumcision	5
Cyst	39
Diphtheria	9
Erysipelas	4
General Debility	40
Gonorrhœa	384
Influenza	227
Malaria	16
Measles	18
Mountain Fever	1
Mumps	6
Neurasthenia	7
Malignant growths	11
Non-malignant growths	16
Ptomaine	5
Rheumatism	96
Rheumatic fever	6
Scarlatina	2
Scarlet fever	6
Septicemia	4
Smallpox	1
Sleeping sickness	1
Syphilis	244
Tuberculosis	78
Typhoid fever	26
Typhoid inoculations	
Varicella	1

1,283

Nervous System—

Hysteria	1
Neuritis	20
Concussions	2
Meningitis	3
Dementia præcox	1
Epilepsy	5
Headache	3
Insomnia	2
Melancholia	1
Mental	3
Myalgia	30
Neuralgia	38
Paralysis	4
Paranoia	1

114

Diseases of the Eye—

Blepharitis	14
Conjunctivitis	43
Dacryocystitis	1
Diplopia	1
Glaucoma	2
Iritis	9
Scleritis	2
Strabism	1
Stye	8
Ulcer Cornea	10

91

Diseases of the Ear—

Cerumen	52
Mastoiditis	7
Otalgia	13
Otitis externa	9
Otitis media	69

150

Diseases of the Nose and Throat—

Infections	6
Coryza	24
Deviated septum	12
Epistaxis	3
Frontal sinus	3
Ozena	1
Rhinitis	3

52

Diseases of the Circulatory System—

Angina pectoris	6
Arterio-sclerosis	1
Cardialgia	7
Endocarditis	3
Goitre	2
Heart disease	7
Myocarditis	11
Pericarditis	3
Tachycardia	1
Varicose veins	16

57

Diseases of the Respiratory System—

Abscess lungs	3
Asthma	18
Bronchitis	129
Broncho-pneumonia	8
Conjestion lungs	7
Hemorrhage lungs	6
Laryngitis	37
Pleurisy	50
Pneumonia	28
Tonsillitis	134

420

Diseases of the Digestive System—

Abdominal adhesions	1
Alvcolar abscess	14
Appendicitis	119
Cholecystitis	8
Colitis	8
Constipation	58
Dental caries	97
Diarrhœa	32
Dyspepsia	12
Dysentery	17
Enteritis	31
Enterorrhagia	1
Fistula	6
Gastro-enteritis	6
Gastritis	101
Hemorrhoids	44
Hemorrhage stomach	2
Hepatic-colic	3
Hernia	76
Indigestion	91
Intestinal obstruction	9
Jaundice	18
Peritonitis	1
Pharyngitis	22
Pyorrhœa	18
Quinsy	9
Toothache	319
Ulcer Duodenum	34
Ulcerated stomach	28

1,185

Diseases of the Lymphatic System—

Adenitis	39
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Diseases of the Generative System—

Chancroids	48
Epididymitis	16
Hydrocele	12
Orchitis	17
Paraphimosis	2
Phimosis	6
Spermatorrhoea	1
Stricture	7
Urethritis	17
Varicocele	10
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	136

Diseases of the Urinary System—

Albuminaria	4
Cholelithiasis	2
Cystitis	23
Bright's Disease	3
Diabetes	10
Hematuria	10
Nephritis	30
Nephrolithiasis	1
Prostatitis	25
Pyelitis	3
Renal Calculus	14
Renal Colic	4
Retention	4
	<hr/>
	133

Disease of the Organs of Locomotion—

Arthritis	60
Bursitis	29
Lumbago	82
Myositis	6
Neurosis	2
Osteo-Myelitis	17
Osteitis	6
Periosteitis	4
Phlebitis	4
Sciatica	15
Sinusitis	8
Synovitis	23
	<hr/>
	256

Diseases of the Connective Tissues—

Abscess	98
Cellulitis	145
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	243

Diseases of the Skin—

Acne	14
Boils	96
Carbuncle	14
Dermatitis	27
Eczema	42
Erythema	8
Herpes Circinatus	1
Herpes Zoster	14
Impetigo	13
Psoriasis	4
Scabies	20
Sycosis	2
Ulcers	36
Urticaria	7
Whitlow	22
	<hr/>
	320

Injuries—

Multiple injuries	15
Burns and scalds	86
Contusions	106
Abdomen	6
Ankle	14
Arm	24
Back	16
Chest	23
Ear	2
Elbow	7
Eyes	16
Face	20
Fingers	179
Foot	56
Hand	104
Head	26
Hip	11
Knee	27
Leg	49
Lip	4
Nose	4
Ribs	17
Scalp	20
Shoulder	15
Side	13
Spine	10
Thigh	3
Throat	2
Toes	30
Thumb	3
Wrist	17

925

Fractures—

Ankle	4
Arm	11
Clavicle	6
Elbow	2
Femur	3
Fibula	7
Fingers	9
Foot	13
Leg	6
Mandible	2
Maxillary	1
Metacarpal	18
Nose	1
Os calcis	3
Petalla	1
Radius	14
Ribs	45
Skull	8
Spine	4
Tibia and Fibula	8
Tibia	8
Toe	6
Wrist	4

184

Dislocations—

Clavicle	1
Finger	1
Hand	1
Radius	1
Shoulder	6
Thumb	3

13

Sprains—

Ankle	33
Arm	3
Back	14
Chest	2

Sprains—Con.

Elbow	4
Foot	3
Hand	2
Hip	2
Knee	6
Leg	2
Shoulder	6
Wrist	11
	<hr/>
	88

Foreign Bodies—

Ear	1
Eye	61
Finger	2
Hand	3
Jaw	2
Lip	1
Nose	1
Thigh	1
Throat	1
	<hr/>
	73

Strains—

Abdomen	7
Arm	2
Back	13
Foot	4
Hip	1
Knee	4
Leg	1
Muscular	28
Side	2
Shoulder	3
	<hr/>
	65

Frost bite	2
Frozen feet	1
Gas poisoning	4
X-Ray examination	42
All others	193
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	242
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Total	6,069

QUARANTINE SERVICE

The organized quarantine stations of Canada are:—

Province of Quebec.—Grosse Isle in the river St. Lawrence, with Father Point as the inspecting base, and Quebec and Montreal harbours as substations.

Province of Nova Scotia.—Halifax, the Harbour and Lawlor's Island.

Province of New Brunswick.—Saint John, the Harbour and Partridge Island.

Province of British Columbia.—William Head, with Victoria, Esquimalt, Vancouver (including all of Burrard Inlet), New Westminster, and their respective harbours, as substations.

Each organized quarantine station is in charge of a medical quarantine officer.

A substation is a port of final destination to which vessels may go after procuring pratique at an organized quarantine station, and where, following discharge of cargo, they can with greater facility be fumigated or disinfected, and where other functions may, when required, be performed, as directed by the Department.

Each substation is in charge of the chief or senior immigration medical officer, except when otherwise provided by the department.

UNORGANIZED QUARANTINE STATIONS

Every maritime port in Canada, other than those mentioned above, is designated an unorganized maritime quarantine station.

Every inland port on the Canadian frontier is designated an unorganized inland quarantine station.

At each unorganized maritime or inland quarantine station, the local customs officer is, ex officio, the quarantine officer for the purposes of these regulations.

The Governor in Council may, however, from time to time, when circumstances warrant it, appoint a temporary medical quarantine officer at any unorganized maritime or inland quarantine station, who shall supersede for the time being the customs officer as the quarantine officer of such port.

QUARANTINABLE DISEASES

The quarantinable diseases are:—

- (a) Cholera (Asiatic).
- (b) Plague.
- (c) Smallpox.
- (d) Typhus fever.
- (e) Yellow fever.

OTHER CONTAGIOUS OR INFECTIOUS DISEASES

Persons sick with other infectious or contagious diseases such as chickenpox, diphtheria, enteric fever, erysipelas, influenza, measles, scarlet fever, etc., are taken care of at quarantine stations only when proper facilities do not exist for their treatment at the port where such cases are to be landed.

The following tabulation indicates the number of vessels and personnel inspected at the organized quarantine stations during the fiscal year 1929-30:—

VESSELS AND PERSONNEL INSPECTED

Station	Vessels inspected	Passengers				Crews	Cattlemen, stowaways, distressed seamen, etc.	Total personnel inspected
		First class	Cabin class	Tourist third	Third class and steerage			
Father Point, P.Q.....	917	5,041	21,128	26,689	75,120	93,547	96	221,621
Halifax, N.S.....	636	2,831	20,413	13,602	52,446	89,950	44	179,286
St. John, N.B.....	282	3,173	45	2,057	15,800	21,609	15	42,699
William Head, B.C....	952	6,228	3,041	7	16,978	63,280	17	89,551
Total.....	2,787	17,273	44,627	42,355	160,344	268,386	172	533,157

No cases of quarantinable disease occurred during the year on vessels which came up the St. Lawrence river. Minor infectious diseases were, as usual, disembarked at the port of Quebec and cared for in the Immigration Hospital (see report of Immigration Medical Division).

Neither were there any cases of quarantinable disease at the ports of Halifax or Saint John during the year; a few cases of minor infectious diseases only. At the port of Halifax, these were treated in the Immigration Hospital at Rockhead, as is now the established practice (see report of Immigration Medical Division).

At William Head, B.C., the quarantine station guarding Pacific coast ports, apart from one case of smallpox, the sick taken by the quarantine officer from arriving vessels were restricted to the minor infectious diseases class.

The following tables show the distribution of sick, contacts, and persons accompanying the sick, in the quarantine hospitals at Saint John and William Head respectively:—

CASES TREATED IN QUARANTINE HOSPITAL AT PARTRIDGE ISLAND, ST. JOHN, N.B.

Diagnosis	Number of sick	Number of hospital days	Contracts and persons accompanying sick	Detention period in days	Total persons detained	Total days in hospital and detention quarters
Chickenpox.....	6	87	8	125	14	212
Erysipelas.....	2	19			2	19
Measles.....	12	298	19	369	31	667
Mumps.....	5	61	15	203	20	264
Scarlet fever.....	5	165	8	180	13	345
Total.....	30	650	50	877	80	1,507

CASES TREATED IN QUARANTINE HOSPITAL AT WILLIAM HEAD, B.C.

Diagnosis	Number of sick	Number of hospital days	Contracts and persons accompanying sick	Detention period in days	Total persons detained	Total days in hospital and detention quarters
Chickenpox.....	1	13	1	13	2	26
*Influenzal pneumonia.....	16	89	170	510	186	599
Smallpox.....	1	42	9	108	10	150
Totals.....	18	144	180	631	198	775

*Two of these cases terminated fatally.

DERATIZATION OF SHIPS

In accordance with article 28 of the International Sanitary Convention, 1926, to which Canada is a signatory, and by authority of section 44 of the Canadian Quarantine Regulations, all ships arriving at ports of Canada, except coasting vessels, are subject to periodical fumigation for the destruction of rats. When, upon inspection, ships are found to be permanently so maintained as to keep the rat population down to a minimum, the Department has authority, under the regulations, to issue deratization exemption certificates in certain cases.

Facilities for the deratization of ships now exist in Canada at the ports of Halifax and North Sydney, Nova Scotia; St. John, New Brunswick; Chicoutimi, Port Alfred, Three Rivers, Quebec, and Montreal, province of Quebec; Vancouver, New Westminster, Prince Rupert, Victoria, Esquimalt, William Head, Cremainus, Nanaimo, Comex, and Port Alberni, British Columbia.

The following table summarizes the work done at the respective ports:—

FUMIGATION OF SHIPS FOR DERATIZATION

Port	Vessels fumigated with		Deratization certificates issued	Dead rats recovered	Deratization exemption certificates issued
	Cyanide	Sulphur			
Halifax, N.S.....	41	.....	41	50	11
North Sydney, N.S.....	.....	4	4	.....	.....
St. John, N.B.....	11	3	14	20	11
Chicoutimi, P.Q.....	.....	1	1	76	1
Port Alfred, P.Q.....	.....	1	1	39	1
Three Rivers, P.Q.....	.....	3	3	.....	.....
Quebec, P.Q.....	.....	5	5	18	.....
Montreal, P.Q.....	62	.....	62	654	18
Vancouver, B.C.....	103	17	120	554	4
William Head, B.C.....	1	5	6	110	1
Esquimalt, B.C.....	1	.....	1	.....	.....
Victoria, B.C.....	1	.....	1	.....	.....
Total.....	220	39	259	1,521	47

QUARANTINE AGREEMENT WITH UNITED STATES

In harmony with the provisions of Article 57 of the International Sanitary Convention, signed at Paris on June 21, 1926, and reading in part as follows:—

“Governments, taking into account their particular situation, may conclude special agreements amongst themselves, in order to make the sanitary measures prescribed by the Convention more efficacious and less burdensome”;

and following strong representations on the part of the Canadian and United States shipping interests on the Pacific coast, an Agreement was entered into

during the fiscal year between the Government of Canada and the Government of the United States, effective as from January 1, 1930, whereby vessels from foreign countries destined to both Canadian and United States ports located on the Straits of Juan de Fuca, Haro, Rosario, Georgia, Puget Sound or their tributaries or connected waters, or so destined to ports on the Great Lakes and St. Lawrence River, shall undergo one quarantine inspection only, i.e., by the quarantine officer of that Government having jurisdiction over the primary port of arrival, in place of the dual quarantine inspection conducted hitherto. In such cases the quarantine pratique is issued in duplicate, the original being presented at the primary port of arrival and the duplicate presented to the quarantine officer at the first port of call under the jurisdiction of the other Government. This Agreement is subject to the proviso that cases of quarantinable disease have not been prevalent in the ports visited and have not occurred on board the vessel since the issuance of the original pratique.

REPORTS FROM QUARANTINE OFFICERS

The following extracts are from reports received from the respective quarantine officers:—

St. Lawrence River Quarantine Service: Medical Superintendent, Dr. W. W. Ayles.

"Following is a résumé of the activities at Father Point inspecting station during the season of 1929 just ended:—

"There were 917 vessels cleared during the season, being 317 fewer than last year. This decrease was due to the grain situation. Practically no tramp steamers came up the St. Lawrence during the season.

"A total of 1,634 vessels passed inward and the steamer *Jalobert* or the new launch *A. Martin* of the pilotage service went alongside of them. Quite a number were coasting vessels and we, therefore, did not have to board them. We had, however, to go out to them and in many cases had to inquire of the masters whence they came owing to the fact that many vessels will not fly the necessary quarantine signals although their captains have been coming up the St. Lawrence for years. This omission on their part entails a great deal of extra and useless work for us. As I did in last year's report, I again recommend the imposition of the fine, as provided in the regulations, for breaches of the same. If done in a few instances there would soon be no necessity of doing so, as the regulation would then be carried out.

"The past season has been a good one, there being practically no severe storms at all and only a few moderate ones. All vessels were cleared here and none had to be sent to Quebec as in former years.

"Of the vessels cleared, 203 were passenger vessels (22 per cent of vessels cleared), being seven fewer of this class of vessel than last year.

"The personnel on vessels cleared totalled 221,621, divided as follows: First, 5,041; cabin class, 21,128; tourist third, 26,689; third class, 75,120; steerage, nil; crews, 93,547; others, 96.

"Contagious or other diseases were reported on 93 vessels on as many voyages. These included all the minor infectious diseases and cases of pyrexia where the disease was not sufficiently developed to permit our making a definite diagnosis here. Other non-infectious cases on board were noted and reported. All these cases were taken care of at Quebec at the Immigration Hospital.

"On one occasion the ss. *Melita* wirelessed that she had three cases of variola on board, but on boarding the vessel here we decided it was not such and our diagnosis was confirmed by Dr. Mayrand, consulting specialist of the Department at Quebec, where I took the vessel direct instead of stopping at Grosse Isle as would have been done if there had been a doubt as to the nature of the disease.

"On June 16 the ss. *Cairglen* arrived here with one of the crew ill. A provisional diagnosis of varicella was made here and the vessel sent to Quebec for confirmation or otherwise. The diagnosis of varicella was confirmed there but on the vessel's arrival at Montreal the diagnosis was changed to variola and the case treated as such.

"On October 13 the ss. *Hada County* and on October 23 the ss. *Aalsum* arrived here from Rotterdam where alastrim or variola was epidemic. As the period of incubation for this disease had not elapsed before their dates of arrival, these vessels were taken to Grosse Isle and detained for the required period. Every person on board these vessels who needed it was vaccinated. The vessels were then released.

"On several occasions persons requiring vaccination under the regulations, were vaccinated here. On seven other occasions a total of twenty persons who, coming from infected areas, refused to be vaccinated were sent to the Immigration Hospital at Quebec for the necessary period of detention.

"Deaths were reported on eleven vessels as follows:—*Metagama*, lost overboard; *Antonia*, premature birth; *Montcalm*, urennic coma; *Letitia*, jumped overboard; *Proteus*, malaria; *Lady Somers*, myocarditis; *Metagama*, bronchitis; *Regina* (2), cardiac asthma and cerebral haemorrhage; *Champlain*, burned to death; *Laurentic*, pneumonia; *Olaf Bergh*, heart failure.

"Births were reported on two vessels—the *Aurania*, May 10, and *Antonia*, May 12.

"Passengers obtained permission from the Departments of National Revenue and Immigration to land at Father Point from incoming steamers on three occasions.

"The vessels ordered fumigated were very much fewer than last season owing to falling off in the number of tramp steamers arriving here. Only sixty-four vessels were ordered fumigated—fifty-two at Montreal, five at Quebec, three at Three Rivers and four at Port Alfred and Chicoutimi.

"Twelve vessels arrived here that had sailed from or called at infected ports. Of these, nine were from a smallpox-infected port and three from a plague-infected port. Three other vessels had called at a plague-infected port at some time since their last fumigation.

"A total of fifty-eight vessels were given routine orders which call for an inspection and, if necessary, fumigation.

"Fourteen vessels were given exemption certificates; the remainder were fumigated."

Lawlor's Island, Halifax, N.S.: Quarantine Officer, Dr. J. V. Graham

"During the year 636 vessels were inspected at this Quarantine Station. These vessels carried 89,950 crew, 2,831 first-class passengers, 13,602 tourist-third passengers, 52,446 third-class passengers and 44 others made up of stow-aways, distressed seamen, cattlemen and deportees. The vessels reported two births and eleven deaths at sea, the deaths being classified as angina pectoris, one; acute peritonitis, one; cancer of liver, one; broncho-pneumonia, three; dyspepsia, one; diabetes, one; gastro enteritis, one; stomach ulcer, one; apoplexy, one.

"The following cases of minor infectious disease and members of their families accompanying were handed over to the Immigration Medical Officer for hospitalization: Measles, thirty-nine, with fifty-six accompanying; scarlet fever, four, with six accompanying; mumps, three, with nine accompanying; chickenpox, twelve, with sixteen accompanying; observation for diphtheria, one; influenza, one, with three accompanying; german measles, one, with two accompanying.

"No vessels arrived at this port during the fiscal year with quarantinable disease.

"During the year forty-one vessels were fumigated at this port. On nine of these, fifty dead rats were recovered after fumigation, and on three of them ninety dead mice. The largest number of rats recovered on one ship was twenty.

"The Station hospital was not made use of during the year except for the thirty-eight hospital days of the patient and contact remaining over from last fiscal year.

"Other than the routine vaccination of those members of the staff and members of their families residing on the Station, there were no vaccinations performed here during the year."

William Head, Victoria, B.C.: Quarantine Officer, Dr. C. P. Brown

"I beg to submit the following report covering the work coming under the supervision of this station during the fiscal year April 1, 1929, to March 31, 1930.

"The work is reported as usual under the grouping of divisions—boarding, detention, fumigation, laboratory, lazaretto.

"Boarding Division.—Fewer vessels reported for inspection this year than last, a total of 952 as compared with 1,068 last year. There was a decrease in what is ordinarily called the "tramp freighter" traffic. Passenger traffic showed a small increase during the year. Vessels of British registry comprised 35 per cent of the total traffic, a decrease of six per cent from last year. The Orient still supplies 40 per cent of our vessels. Vancouver is the first Canadian port of call for 62 per cent.

"There was only one vessel quarantined during the year, the last of the smallpox epidemic in the Orient from the previous year. 48 per cent of vessels came from ports reporting some quarantinable disease.

"There have been no outstanding epidemics of quarantinable disease in districts from which our traffic comes. Smallpox has been very widespread, tending to get worse at Hongkong and Shanghai toward the end of the year. Plague has occurred at intervals in its usual haunts, about the Mediterranean, both coasts of South America, the Straits Settlements and at Hongkong for a time last October. Cholera has been prevalent on the Oriental coast and in the Straits Settlements during the winter. Typhus was reported from Dairen. Yellow fever was reported from Brazilian ports. The epidemic of cerebrospinal meningitis died down during the warm weather, and did not recur during this past winter.

"In connection with the work of this division, by authority issued from Ottawa and Washington, "Duplicate Pratique" is now obtainable at William Head and Port Townsend. This treats the international waters of the gulf of Georgia and Puget sound as being subject to coastwise regulations. This station issued thirty-one such duplicate pratique certificates. We received declaration forms covering eleven such as issued at Port Townsend. We issued the first duplicate on January 8, 1930.

"Detention Division.—The bulk of our work under this division was with those Filipinos remaining from the previous year, including the two deaths. Only one case of smallpox was admitted to hospital during the year.

"Fumigation Division.—Eleven vessels were ordered fumigation as coming from plague-infected ports. We advised the respective harbour-masters concerned of the arrival of these vessels. They then enforced rat-guarding regulations and supervised the discharge of cargo until fumigation took place. The remaining vessels were fumigated as routine, in conformity with the regulations. Crews of vessels rather welcome fumigation, not so much as a means of getting rid of rats, as of eliminating the insect pests that so frequently infest their quarters.

"Laboratory Division.—Only the routine work for the patients at Bentinck Island was done this year.

"Bentinck Island Lazaretto.—During the year two patients were returned to China as practically non-infectious and quite able physically to earn their living. The Russian patient was transferred to the lazaretto at Tracadie, N.B. He was very lonely here without other white patients to talk with. There are three patients in whom we can expect further improvement. The best that can be done for the others is to make them comfortable and keep the disease arrested as far as possible.

"Buildings and Equipment.—The architects division, Department of Public Works, have installed an extra fuel oil tank, done considerable renovating of the residences, and assisted our staff in routine repairs by supplying materials and supervision. Both buildings and equipment have been kept ready for work. The question of the providing of electric energy by the British Columbia Electric Company is under discussion. The engineers division, Department of Public Works, had quite extensive repairs carried out on the large wharf.

"Boats.—Both vessels have been kept fit for duty. The condition of the *Madge* has been the subject of much discussion, and a recommendation has been made to replace it with a smaller vessel as more useful and economical. Captain Robertson, of the Marine Department, has been very kind in advising us along this line. Plans have been prepared pending parliamentary action.

"Staff.—There have been no changes during the year.

"Departmental Visits.—There have been no visits from Ottawa during the year. In December I accompanied the Russian to Tracadie, stopping at Ottawa for several days on the return journey.

"We have had various local conferences here with Dr. L. D. Fricks, Senior Surgeon, United States Public Health Service, in charge at Seattle and district, concerning matters of mutual interest, especially the arrangements for duplicate pratique certificates.

"I wish to express to you my appreciation of the good work done by Dr. Tremayne and all members of the staff here and at Bentinck Island, also by Dr. Cartwright at Vancouver.

"I also wish to express to you the appreciation of Dr. Tremayne and myself of the friendly co-operation of associated services, provincial and city, and especially the kind help and co-operation of Dr. Young.

"Other Government services with whom we come in contact, especially the Department of Public Works, have been most courteous and helpful."

The following tabulated statements summarize the work of each division:—

BOARDING DIVISION

Vessels and Persons Inspected—

Total number of vessels inspected	952
Total persons inspected	89,551
as follows:—	
Crew	63,280
First class	6,228
Second class	3,041
Tourist third	7
Third class	3,754
Steerage	13,224
Others	17

Nationality of Vessels—

British	330	(34.7%)
United States	196	(20.6%)
Japanese	186	(19.5%)
Norwegian	71	(7.4%)
German	42	(4.3%)
Swedish	30	(3.2%)
Danish	27	(2.8%)
Dutch	22	(2.3%)
French	20	(2.1%)
Belgian	6	
Greek	1	
Mexican	1	

BOARDING DIVISION—*Concluded**Nationality of Vessels—Con.*

Nicaraguan	1
Panama	1
Finish	1
Chilean	1

Where from—

Orient	384	(40.3%)
Europe	249	(26.2%)
North America	204	(21.4%)
Australasia	58	(6.1%)
Central and South America	56	(5.9%)
Africa	1	

Destination of Vessels—

Vancouver	592	(62.2%)
Victoria	198	(20.8%)
New Westminster	93	(9.8%)
Comox and Union Bay	19	
Chemainus	12	
Powell River	10	
Port Alberni	9	
James Island	4	
Nanaimo	4	
Ocean Falls	3	
Englewood	3	
Nanoose	3	
Port Alice	2	

Time of Inspection—

During the day	531	(55.7%)
During the night	421	(44.3%)

Vessels from ports showing quarantinable disease—

Number vessels	460	(48.0%)
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Vessels quarantined—

Number vessels	1	(for smallpox)
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Persons vaccinated for smallpox—

Crew of vessel	31
Staff and families	45
Total	76

Hospital and Detention Division—

Sick	18	Hospital days	144
Contacts and persons accompanying	180	Hospital days	631

(Of above, 16 sick and 170 contacts were remaining from previous year)

Deaths in quarantine hospital 2
(from influenzal pneumonia)

FUMIGATION DIVISION

Vessels fumigated at Vancouver	120
Vessels fumigated at Victoria	8
Exemption certificates issued at Vancouver	4
Fumigated with cyanide only (Zyklon-B)	105
Fumigated with sulphur only	22
Fumigated with sulphur and cyanide	1
Vessels inspected on remand	72
Vessels inspected on request	60

Vessels from—

Orient	73
North America	20
Europe	14
Australasia	10
South America	7
Central America and Mexico	3
Africa	1

FUMIGATION DIVISION—*Concluded*

Total number rats recovered	669
Total number mice recovered	147
Rats on remand vessels	392
Rats on request vessels	277
Rats found on 47 vessels, averaging 14.3 per vessel	
Rats found after cyanide fumigation	554
Rats found after sulphur fumigation	115
Rats found in holds of vessels	554 (83.0%)
Rats found in storerooms (forepeak, afterpeak, provision storeroom)	112 (17.0%)
Rats found in living quarters	3
<i>Rats recovered (and inspected)—</i>	
Mus Alexandrinus	391
Mus Rattus	116
All adults of these were dissected and found negative for plague.	
Vessels remanded for fumigation to Seattle.....	21

LABORATORY DIVISION

Total specimens examined	43
All smears for B. Leprae	
Nasal smears	41
Smears from thickened areas of skin.....	2
Smears positive for B. Leprae	20
Smears negative for B. Leprae	23

*Montreal Sub-Station: Medical Officer in Charge of Ships' Fumigations,
Dr. G. E. Beauchamp.*

"The inspection and the fumigation of ships were carried out according to the instructions given in 1928.

"The arrangements concluded with the Harbour Commission for the use of one of their buildings as a central warehouse in the harbour and the use of a small store for the material and equipment at Longue-Pointe were again made for the last navigation season.

"The use of a floating dock for the yacht at Longue-Pointe was also arranged with the Harbour Commission.

"The yacht *Jeannette* was used for the inspection and fumigation of ships at Longue-Pointe and in the harbour when possible.

"The number of vessels inspected and fumigated was much smaller than in previous years. This was due to the fact that vessels coming to Montreal to take grain cargoes have decreased considerably during the season.

"As we are expecting a rush of grain boats during the first months of the coming season, we have made preparations for taking care of same in the way of extra equipment and personnel that will be available at a moment's notice, so as to avoid any complaints of delay due to our organization."

*Vancouver Sub-Station: Medical Officer in Charge of Ships' Fumigations,
Dr. C. Cartwright.*

"During the past twelve months the fumigation of vessels with 'Zyklon B' has continued to give satisfaction and many coasting vessels, which are exempt under the regulations, have been fumigated by the companies operating here, at the request of the owners.

"There has been a falling off in the number of vessels fumigated during the past twelve months, especially during December, January and February, as compared with the same period last year; the figures being twenty-seven this winter as compared with fifty-five in 1928-29. This was probably due to the smaller quantity of grain shipped during this winter from Vancouver.

"During the past twelve months 120 deep-sea vessels have been fumigated here and four vessels have been granted exemption certificates.

"Vessels done on remand numbered sixty-four and by request fifty-six.

During the past year, at the request of the department, I have assisted at the examination of twenty-seven pilots, have examined the crews of the customs launches *Despatcher* and *Imperator*, and have also instructed Messrs. Langridge and McGhee, of the Granby Consolidated Mining and Smelting Company, in the use of cyanide gas for fumigating purposes."

LEPROSY AND LEPER STATIONS

Under the Quarantine Regulations of Canada, it is the duty of a quarantine officer to satisfy himself by the presence or absence of obvious signs, whether or not leprosy exists among the passengers or crew on board a vessel arriving at a Canadian port. In the event of this disease being found, the person affected would not be allowed to enter the country, but would be detained in quarantine at the vessel's expense until taken aboard by the same vessel when next outward bound, unless satisfactory reasons be given for further delay. In the event of the vessel failing to take back the said leper, he or she would be deported by the department at the expense of the owners of such vessel.

By authority of the Leprosy Act (R.S. 1927, c. 136), two leper colonies, one at Tracadie, N.B., the other at Bentinck Island, B.C., are administered by the Quarantine Division of the department. In these institutions are segregated all known cases of leprosy in Canada, in accordance with the provisions of the Leprosy Act.

LAZARETTO AT TRACADIE, N.B.

Medical Superintendent, Dr. J. A. Langis

At the close of the fiscal year there were ten patients in this institution—six males and four females—as compared with eight a year ago. One of the new arrivals was transferred from the Bentinck Island lazaretto; the other was a case discovered in Blaine Lake, Sask. Five of the patients show clinical signs of active leprosy; the other five are considered to be arrested cases.

The following table furnishes particulars of the respective patients:—

Patient	Age	Sex	Date admitted	Nationality	Where from
P. D.....	43	M.	May, 1909.....	French Acadian.....	Lameque, N.B.
B. T.....	79	F.	October, 1914....	French Acadian.....	Portage River, N.B.
A. D.....	31	F.	July, 1918.....	French Acadian.....	Lameque, N.B.
J. D.....	68	M.	April, 1919.....	French Acadian.....	Lameque, N.B.
V. de L.....	30	F.	January, 1921....	Scotch and French descent.....	Toronto, Ont.
K. S. J.....	48	M.	October, 1922....	Chinese.....	Montreal, Que.
J. P.....	36	F.	November, 1926..	Russian.....	Blaine Lake, Sask.
P. P.....	86	M.	July, 1928.....	French Canadian.....	Neguac, N.B.
*E. D.....	37	M.	December, 1929..	Russian Doukhobor.....	Verigin, Sask.
N. P.....	25	M.	February, 1930...	Russian Doukhobor.....	Blaine Lake, Sask.

*Transferred from lazaretto at Bentinck Island, B.C.

LAZARETTO AT BENTINCK ISLAND, B.C.

Medical Officer in Charge, Dr. C. P. Brown

At the close of the fiscal year there were nine patients in this institution, all males, this number being three fewer than in the previous year. Two patients were returned to China as non-infectious, and one was transferred to the lazaretto at Tracadie, N.B.

Dr. Brown reports that medicinal treatment was carried on along approved lines. The condition of three of the cases shows some improvement as indicated below; the condition of the remaining six is such that a cure of the disease cannot be expected.

The table below furnishes particulars of the respective patients:—

Patient	Age	Date admitted	Nationality	Where from
F. H.....	44	August, 1916.....	Chinese.....	Victoria.
C. K. W.....	45	October, 1918.....	Chinese.....	Vancouver.
L. A.....	34	November, 1918.....	Chinese.....	Victoria.
L. B.....	39	December, 1921.....	Chinese.....	Vancouver.
C. K.....	50	March, 1922.....	Chinese.....	Saanich, B.C.
W. K. D.....	45	October, 1925.....	Chinese.....	Nanaimo, B.C.
W. H. F.....	28	October, 1927.....	Chinese.....	Vancouver, B.C.
C. W.....	43	August, 1928.....	Chinese.....	Nanaimo, B.C.
L. C.....	82	March, 1929.....	Chinese.....	Vancouver, B.C.

These patients are classified by Dr. Brown as follows:—

Retrogressing slowly	2
Without change	4
Improving	3

One patient only has been bacteriologically negative throughout the year. In March, 1930, six patients showed negative smears.

IMMIGRATION MEDICAL SERVICE

Section 3 of the Immigration Act of Canada provides that no immigrant, passenger, or other person, unless he is a Canadian citizen or has Canadian domicile, shall be permitted to enter or land in Canada who belongs to any of the following "prohibited classes":—

Mentally Defective Persons.

Subsection (a) of section 3 prohibits the landing in Canada of "Idiots, imbeciles, feeble-minded persons, epileptics, insane persons and persons who have been insane at any time previously."

Loathsome and Dangerous Contagious Diseases.

Subsection (b) of section 3 places in the prohibited classes "Persons afflicted with tuberculosis in any form or with any loathsome disease, or with a disease which is contagious or infectious, or which may become dangerous to the public health, whether such persons intend to settle in Canada or only pass through Canada in transit to some other country; provided that if such disease is one which is curable within a reasonably short time, such persons may, subject to the regulations in that behalf, if any, be permitted to remain on board ship if hospital facilities do not exist on shore, or to leave ship for medical treatment."

Physically Defective Persons.

Subsection (c) of section 3 places in the prohibited classes, "Immigrants who are dumb, blind, or otherwise physically defective, unless in the opinion of an Immigration Department board of inquiry, or officer acting as such, they have sufficient money, or have such profession, occupation, trade, employment or other legitimate mode of earning a living that they are not liable to become a public charge, or unless they belong to a family accompanying them or already in Canada, and which gives security satisfactory to the Minister against such immigrants becoming a public charge."

Constitutional Psychopathic Inferiority.

Subsection (k) of section 3 prohibits the entrance of "persons of constitutional psychopathic inferiority."

Chronic Alcoholism.

Subsection (l) of section 3 prohibits the entrance of "persons with chronic alcoholism."

Minor Mental or Physical Defects.

Subsection (m) of section 3 prohibits the entrance of "persons not included within any of the foregoing prohibited classes who, upon examination by a medical officer, are certified as being mentally or physically defective to such a degree as to affect their ability to earn a living."

IMMIGRATION MEDICAL SERVICES OVERSEAS

Under a policy adopted in the autumn of 1927, prospective emigrants to Canada from the British Isles and the countries of Europe are required to undergo medical examination before obtaining permission to come forward. This examination is conducted by Canadian doctors employed by the department. In the British Isles, in addition to the Canadian medical officers stationed at key centres, examinations may be performed by British doctors selected by the department from an official roster. This facilitates the work, particularly in the towns and rural centres.

At the opening of the fiscal year, examination centres in charge of Canadian medical officers were in operation in the following cities:—

England:	Ireland:
London,	Belfast,
Liverpool,	Londonderry,
Bristol,	Cork.
Birmingham,	Wales: Cardiff.
York,	France: Paris.
Newcastle.	Belgium: Antwerp.
Scotland:	Holland: Rotterdam.
Glasgow,	Germany: Hamburg.
Aberdeen.	Poland: Danzig.
	Latvia: Riga.

By the end of the fiscal year the number of these centres had been reduced by eliminating Bristol, Birmingham, York, Aberdeen, Londonderry, in the British Isles, and extending the use of British roster doctors. The examination centre at Riga was also dispensed with.

As regards those immigrants coming direct to Canada from the Scandinavian countries of Norway, Sweden, and Denmark, there being neither Canadian immigration agents nor Canadian medical officers stationed in these countries, all prospective settlers arriving therefrom are subjected on arrival at Canadian ports to the same thorough medical examination as is required in the British Isles and at European ports.

Medical officers of the Immigration Medical Service, Department of Pensions and National Health, act merely in an advisory capacity to the Department of Immigration. It is their duty to diagnose the mental and physical condition of the prospective immigrants presented to them, and to "certify" those who in their opinion are subject to rejection under section 3 of the Immigration Act. Decision as to the acceptance or rejection of those medically "certified" rests with the Department of Immigration.

The increased efficiency resulting from the system of medical examination prior to embarkation may be appreciated when it is noted that, previous to the advent of this policy, at the time when immigrants were medically inspected on arrival in Canada, there were rejected at our ocean ports, on medical grounds, some four hundred persons between the years 1923 and 1927, involving the serious disadvantage to them of being returned to their native land. During the last fiscal year the medical examiners overseas "certified" some 10,907 persons, the majority of whom were thereby prevented from emigrating to Canada, and saved the risk of rejection on arrival in Canada.

**MEDICAL EXAMINATIONS CONDUCTED IN BRITISH ISLES AND ON CONTINENT
OF EUROPE, PRIOR TO EMBARKATION**

1929-30	British			Continental
	By Canadian medical officers	By roster doctors	Totals	By Canadian medical officers
April.....	12,042	1,772	13,814	9,221
May.....	10,465	1,278	11,743	7,437
June.....	6,083	1,318	7,401	5,900
July.....	4,703	1,115	5,818	5,838
August.....	4,289	1,007	5,296	3,685
September.....	2,727	890	3,617	2,873
October.....	3,021	649	3,670	2,550
November.....	2,093	379	2,472	2,074
December.....	1,736	401	2,137	1,647
January.....	2,555	958	3,513	1,633
February.....	3,863	1,777	5,640	3,045
March.....	4,526	2,333	6,859	10,762
Totals.....	58,103	13,877	71,980	56,665

Of the total of 128,645 persons thus medically examined prior to embarkation, 10,907 were certified as "prohibited" under the categories set forth in the following table:—

**PROSPECTIVE IMMIGRANTS MEDICALLY EXAMINED PRIOR TO EMBARKATION AND
CERTIFIED UNDER SECTION 3 OF THE IMMIGRATION ACT**

Certified for	British		Continental	Totals
	Examined by Canadian medical officers	Examined by British roster doctors	Examined by Canadian medical officers	
SS. (a) Mental diseases and defects.....	512	54	47	613
SS. (b) Loathsome diseases, including tuberculosis....	142	20	546	708
SS. (c) Physical diseases and defects.....	6,144	804	1,217	8,165
SS. (k) Constitutional psychopathic inferiority.....	230	13	9	242
SS. (l) Chronic alcoholism.....	6	2	1	9
SS. (m) Minor mental and physical defects.....	783	163	214	1,160
Totals.....	7,817	1,056	2,034	10,907

The following is an extract from the annual report of Dr. H. B. Jeffs, Chief Medical Officer of the Overseas Service at London:—

"I beg to submit my report on the work of the Overseas Immigration Medical Service during the fiscal year 1929-30.

"During the period covered the overseas service lost, through retirement or transfer, three of our very promising medical officers in Drs. Currie, Delamere and Nodwell. We have had for varying intervals on temporary duty, Immigration Medical Officers from Canadian ports in the persons of Drs. Chisholm, Ohretien, Couillard, Gouthro, Macaulay and Reid. Since the visit of the honourable the minister and the deputy minister in June, 1929, we have been assisted also by Dr. Williamson, Medical Adviser of the Pensions Branch of the department in London.

"There have been no promotions among the medical or clerical staff, but the department have been able to grant the annual statutory increase for all our permanent personnel. Four stenographers have been taken on the staff during the past fiscal year, and five have retired.

"Following the expressed desire of the honourable the minister that the medical officers of our service should be associated together in their work as much as possible and not isolated, and with a view to economy, there has been considerable rearrangement in the location of our offices.

"In August, following the decision of the Department of Immigration and Colonization to close their office in Riga, we were able to close our office there and transfer Dr. Rolland to Danzig, thereby relieving the situation at the latter port.

"In July we were able to transfer our medical officer from Birmingham to Glasgow, the work of the Birmingham office being done henceforth first from Bristol, and later from London, the office being finally closed in December.

"The Bristol and Aberdeen offices were closed in September, and the medical officers transferred to Liverpool and Glasgow respectively. York and Londonderry offices were closed at the end of December, and the medical officers transferred to Liverpool and Belfast respectively.

"Consequently, at the end of the fiscal year we had offices in the British Isles in London, Cardiff, Liverpool, Newcastle, Glasgow and Belfast, with a continuance of the part-time service in the Irish Free State. On the Continent our offices were stationed at Paris, Antwerp, Rotterdam, Hamburg (covering Bremen), and Danzig.

"The medical personnel consisted in the British Isles of fifteen permanent and one part-time medical officer, and on the Continent, five permanent and one temporary medical officer.

"The clerical staff totalled twenty-one permanent, two temporary, and two part-time clerks and stenographers.

"During the fiscal year 58,103 examinations were conducted in the British Isles by Canadian medical officers, who made 7,817 certifications or 13.60 per cent. On the Continent 56,665 examinations were conducted, but the certifications only totalled 2,034 or 3.57 per cent. *This marked difference in the percentage of certifications is explained by the fact that prospective emigrants to Canada on the Continent are examined one to four times prior to their examination by a medical officer of our service.*

"A considerable difference in the average number of examinations conducted by individual medical officers on the Continent, as compared with examinations conducted by medical officers in the British Isles, will be noted. The medical officers on the Continent are able to do many more examinations each day on account of the extra facilities provided for their examinations, and the assistance they receive from the steamship companies' officials. In the British Isles our medical officers are required to act as ushers in addition to examiners, and lose a very considerable time while emigrants are disrobing and dressing.

"Owing to the loss in personnel it has been necessary to further extend the roster of British practitioners authorized to conduct examinations for our service. The increase on March 31, 1930, as compared with March 31, 1929, is 111.

"Although there is a very large number of doctors on the roster, it is to be observed that more than fifty per cent conducted fewer than eleven examinations during the twelve months, and that in only 0.02 per cent of roster doctors' centres were more than 200 examinations conducted. Out of the total of 553 centres where roster doctors were authorized to conduct examinations, at only 72 of these centres were 50 or more examinations conducted.

"During the fiscal year roster doctors examined 13,877 prospective emigrants and certified 1,056, representing 7.60 per cent.

"We greatly appreciated the visit and investigation of the overseas service by the honourable the minister and the deputy minister in 1929, and par-

ticularly the very excellent advice given in general at our July 1 conference, and individually to each medical officer, by Dr. Amyot on every possible occasion.

"The number of British examined during the fiscal year shows a drop of approximately 18 per cent over the last fiscal year, and on the continent of 14 per cent. This, of course, means actually a much more considerable drop in British emigration on account of the greater wastage. This drop in British emigration is almost entirely confined to the first three months of the present calendar year (1930), when examinations by our medical officers and the roster doctors combined show a drop of 17,000 from the examinations during January, February and March, 1929.

"In my opinion the outstanding happening of the year so far as our service is concerned was the new regulation holding apparently cured trachoma cases for three months before they may be passed. This, I hope, is the beginning of the end of trachoma cases in any state of cicatrization emigrating to Canada. Apart from conditions in Canada such as bad crops and the stock market collapse causing unemployment, I consider the other big factor in deportation of British emigration was due to the harvesters' movement in 1928. At this time it was broadcast throughout the British Isles and Canada that facilities would be afforded immigrants to enable them to get a free passage back to Europe at the steamship companies' or Government expense.

"In conclusion I beg to bring to your attention the loyal support and assistance I have received from all our medical and clerical staff during the fiscal year."

IMMIGRATION MEDICAL SERVICE IN CANADA—REPORTS FROM OCEAN TERMINALS

Those immigrants who on arrival in Canada fail to produce evidence that they were medically examined and passed prior to embarkation, including, as above stated, those coming direct from Scandinavian countries, are subjected to a thorough medical examination on this side. Those holding cards of identity showing that they have been passed by the Canadian overseas medical staff, including those certified cases whose emigration has been approved by the Department of Immigration, are not required to undergo medical examination on arrival. When, however, symptoms are apparent indicative of abnormal conditions, which may have developed since they were originally examined, a further medical examination is required.

The following table shows the monthly arrivals at Canadian ocean ports, according to figures supplied by the Department of Immigration:—

MONTHLY ARRIVALS OF IMMIGRANTS AT CANADIAN OCEAN PORTS

Fiscal year 1929-30	Quebec	Halifax	St. John	Sydney	North Sydney	Montreal	Vancouver	Victoria	Monthly
April.....	6,155	12,063	6,837	11	136	37	135	22	25,396
May.....	17,773	4,458	22	1	148	179	120	26	22,727
June.....	13,672	3,896	32	.....	115	116	110	32	17,973
July.....	9,828	2,780	49	3	85	59	71	17	12,892
August.....	8,767	2,424	35	.....	162	32	101	15	11,536
September.....	6,590	1,617	16	.....	115	28	82	17	8,465
October.....	4,747	1,318	27	2	135	31	94	14	6,368
November.....	3,238	1,581	233	.....	94	51	28	23	5,248
December.....	12	2,483	877	.....	73	14	45	9	3,514
January.....	8	1,176	663	.....	52	4	81	44	2,028
February.....	4	1,634	1,032	.....	20	.....	51	14	2,755
March.....	8	7,219	4,839	.....	56	1	143	17	12,283
Port totals.....	70,803	42,649	14,662	17	1,191	552	1,061	250	131,185

The following table shows the number of persons who, on arrival at Canadian ocean ports of entry, were medically certified as "prohibited":—

Ocean ports	Insane, feeble-minded epileptic, etc.	Tuberculosis, loathsome or chronic infectious disease	Physically defective—liable to become a public charge	Constitutional psychopathic inferiority	Chronic alcoholism	Minor physical defects— affecting ability to earn a living	Totals
	Section 3 (a)	Section 3 (b)	Section 3 (c)	Section 3 (k)	Section 3 (l)	Section 3 (m)	
Quebec.....	14	6	31	4	1		56
Halifax.....	6	8	71	1		2	88
St. John.....	3		7				10
Montreal.....		6	10				16
North Sydney.....	1	3	5				9
Vancouver.....	4	3	6				13
Victoria.....	2		2				4
Totals.....	30	26	132	5	1	2	196

The following table indicates, by ports, the specific mental and physical defects for which the above persons were medically certified:—

Condition	Quebec	Halifax	St. John	Montreal	North Sydney	Vancouver	Victoria	Totals
Section 3 (a)—								
Epilepsy.....	4						1	5
Feeble-minded.....	1	1			1	1	1	5
Idiocy.....	1							1
Imbecility.....	2							2
Insanity.....	6	4	1			2		13
Previous insanity.....		1	2			1		4
Section 3 (b)—								
Gonorrhoea.....	1	4		4				9
Ringworm.....	1							1
Sycois barbae.....		1						1
Syphilis.....	1							1
Trachoma.....	3	2		2		1		8
Tuberculosis.....		1			3	2		6
Section 3 (c)—								
Absence of members.....	2	5		1		1		9
Bloof vessels, defects of.....	5	17		1				23
Bronchitis, chronic.....				1				1
Chest conditions.....	1							1
Deafness.....	1			1				2
Deformities.....	5	3	1					9
Duodenal ulcer.....		1						1
Empyema.....				1				1
Fractures.....			1	1				2
Glandular conditions.....		1						1
Goitre.....	1	4						5
Heart conditions.....	4	6	1		2	2	1	16
Hernia.....	4	3	1	1				9
Hydrocele.....		4						4
Jaundice.....							1	1
Joints, disease of.....		1						1
Loss of power of members.....	2	2			3			7
Malaria, recurring.....	2							2
Nephritis.....	1	1						2
Neurasthenia.....	1							1
Nystagmus.....			1					1
Paralysis.....			1			1		2
Pleurisy, chronic.....				1				1
Poor physique.....		2		1				3
Pre-senility.....		1						1
Rheumatism.....	1							1
Senility.....		1				1		2
Tumour, fibroid.....						1		1
Varicocele.....			1					1
Vision, defective.....	1	19		1				21

Condition	Quebec	Halifax	St. John	Montreal	North Sydney	Vancouver	Victoria	Total
Brought forward.....	51	85	10	16	9	13	4	188
Section 3 (k)— Constitutional psychopathic inferiority.....	4	1						5
Section 3 (l)— Chronic alcoholism.....	1							1
Section 3 (m)— Absence of members.....		1						1
Facial paralysis.....		1						1
Totals.....	56	88	10	16	9	13	4	196

Immigrants arriving at Canadian ocean ports who require medical attention are detained in departmental hospitals until they are fit to travel. For this service the respective steamship companies are charged at the following per diem rates:—

Infectious diseases contacts not confined to bed, including persons accompanying the sick.....	{ Children under 10 years of age.....	\$1.00
	{ Adults.....	Free.
Sick, bed cases.....	Adults and children.....	\$2.00
		3.00

The following table indicates the reasons for detention at the respective ports. It includes the cases detained for medical observation, also the minor infectious diseases—measles, chicken-pox, etc., treated at the Immigration Hospital, Quebec, and the Rockhead Immigration Hospital, Halifax. At the port of St. John, minor infectious diseases are treated at the Quarantine Hospital on Partridge Island and are reported under the Quarantine Service.

MEDICAL DETENTIONS

Cause of detention	Quebec	Halifax	St. John	Montreal	Vancouver	Totals
Abscesses.....	6	8	2			16
Adenitis.....	1	5	1			7
Alcoholism.....	1					1
Anaemia.....		2				2
Appendicitis.....		1				1
Asthenia.....		2				2
Balanitis.....	2					2
Bilious attacks.....	1					1
Blepharitis.....		2				2
Boils.....	5	1				6
Bronchitis.....	16	13				29
Broncho-pneumonia.....	4*	4				8
Bursitis.....	1					1
Cancer.....	1*					1
Carbuncles.....		1				1
Cellulitis.....	1	1				2
Chickenpox.....	19	16*				35
Childbirth.....	7	3*				10
Cholecystitis.....	1					1
Colds, acute.....	18					18
Colitis.....	1					1
Conjunctivitis.....	22	4	8		4	38
Constipation.....			1			1
Corneal ulcers.....	4	1				5
Coryza.....		2				2
Cystitis.....	1					1
Debility.....		2				2
Dermatitis.....	1	1				2
Diphtheria.....	2					2
Duodenal ulcer.....	1					1
Eczema.....	1	7	2			10
Enteritis.....	1					1
Erysipelas.....	1	3				4
Erythema.....		2				2
Fracture.....	5	3	2	1		11

MEDICAL DETENTIONS—*Concluded*

Cause of detention	Quebec	Halifax	St. John	Montreal	Vancouver	Totals
Furuncles.....		4				4
Gastritis.....	4					4
Gastro-enteritis.....	3	1				4
German measles.....	2					2
Herpes.....	1	2				3
Hydrosalpinx.....	1					1
Impetigo.....	18	18	5			41
Infected members.....			3			3
Influenza.....	1	8	3			12
Intestinal toxemia.....	1					1
Marasmus.....	1*	1				2
Measles.....	55*	59				114
Miscarriages.....		1				1
Mumps.....	5	6				11
Nephritis.....	1			1		2
Observation—						
Chest.....	1		1			2
Chickenpox (contacts).....	10					10
Diphtheria.....	4					4
Epididymitis.....	1					1
Eyes.....		3	1			4
General and mental.....	6	16	1			23
Genito-urinary.....	1		1			2
German measles (contacts).....	3					3
Goitre.....		2				2
Measles (contacts).....	22					22
Mumps (contacts).....	11					11
Pyrexia.....	4	36	6			46
Rash.....	2					2
Refusing vaccination.....	2					2
Scalp.....	1					1
Scarlet fever (contacts).....	8					8
Skin.....	1	1				2
Throat.....	3					3
Venereal.....		1				1
Osteomyelitis.....	2					2
Otitis media.....	6	3	3			12
Paronychia.....	1	1				2
Peritonitis.....		2				2
Pharyngitis.....	2	2				4
Pleurisy.....		1	1			2
Pneumonia, pleuro.....	1	10				11
Poisoning.....	1					1
Quinzy.....			1			1
Rheumatic fever.....	1					1
Rhinitis.....		1				1
Ringworm.....	3	4				7
Scabies.....	6	2				8
Scalds.....	3					3
Scarlet fever.....	5	11				16
Seasickness.....	3	5	2			10
Septic members.....	9					9
Sinusitis.....		1				1
Sprains.....	8	6				14
Styes.....	3		1			4
Synovitis.....	1					1
Tonsillitis.....	21	6	2			29
Toxic rash.....	3					3
Trachoma cicatrization.....	3			1		4
Trauma.....	4					4
Traumatic shock.....	1					1
Tuberculosis.....	1*					1
Typhoid fever.....	1					1
Ulcers.....		2		1		3
Urticaria.....		1				1
Vaccinia.....	3					3
Vincent's angina.....	1	1				2
Vision, defects of.....		18				18
Whitlow.....		1				1
Worms.....		3				3
Wounds (abrasions, lacerations, contusions).....	8	20				28
Totals.....	398	344	47	4	4	797

*Indicates that 1 died. Remainder were released as cured or fit to travel.

Immigrants arrive at ocean ports from time to time with physical defects which are not considered sufficiently serious to justify their certification as "prohibited" of entry under section 3 of the Immigration Act. A medical record is kept of such cases, however, for possible future reference.

CASES RECORDED AS HAVING MINOR DEFECTS

Quebec	27
Halifax	34
St. John	3
	<hr/> 64

DEPORTATIONS FROM CANADA AFTER ADMISSION, ON ACCOUNT OF PHYSICAL AND MENTAL DEFECTS

During the fiscal year, a total of 928 persons were deported from Canada by the Department of Immigration on account of becoming public charges due to mental or physical defects which either existed prior to their admission to this country or developed within five years of their arrival, the time necessary to acquire Canadian domicile. With a view to checking up the thoroughness of the medical examinations overseas previous to embarkation, before these people are deported from Canada they are detained at Montreal for a competent examination by a medical officer of the department for the purpose of ascertaining, so far as possible, if the medical condition on which their deportation is based pre-existed their entry to Canada, also if it is sufficient to justify return to their home country. From this double checking it is apparent that the large majority of these deportees were physically fit to carry on when they were admitted to Canada; moreover, that whereas a certain percentage of them developed various disabilities subsequent to their arrival, in a high proportion of such cases the disability is so slight that it must be concluded that had they found conditions in Canada to their liking they could have made good; in other words, that they must be classed as malingerers.

LABORATORY OF HYGIENE

Reinspection has been made during the year of all Canadian plants which are under licence to manufacture biological products for human use. They were all found to be in a satisfactory condition. To a plant which was refused a licence last year, a licence was granted this year, as all requirements of the regulations under the Food and Drug Acts had been finally complied with.

On the basis of last year's inspection of clam beds in Nova Scotia, licences have been certified to a further number of shippers of clams to United States markets.

Tests for sterility and potency of biological products on the market, phenol coefficients of disinfectants, clinical diagnosis and others have been made to the number of 778 in the year just closed, and several products have in consequence been denied the Canadian market.

The laboratory has now completed its standard ouabain for manufacturers of tincture of strophanthus, and has distributed samples of it and other standard preparations to several manufacturers in Canada, Great Britain and the United States.

New methods for biologic and bacteriologic assays are being tested out, looking towards better and more accurate results being obtained.

Scientific papers have been prepared, presented and published by members of the staff, and others are in course of preparation.

Additions have been made to the equipment of this Laboratory which will lead to further extension of work.

Some of the Quarantine Station laboratories have been inspected and equipment, added to, and changes of present equipment are contemplated in certain respects to bring these laboratories up-to-date.

As formerly, the laboratory has taken part in problems of investigation in conjunction with the staff of the Food and Drug Laboratory, and has afforded consultant service and practical help to the local medical profession, with fruitful results.

DIVISION OF VENEREAL DISEASE CONTROL

During the past year very satisfying results have followed our efforts along the line of venereal disease control.

Due to a wider knowledge of the work done in the free venereal disease clinics, together with the untiring and sympathetic service rendered by the doctors on duty in these clinics, there has been displayed by patients and the public in general, a marked increase in confidence and co-operation.

From our own observations and from the opinion expressed by many actual workers in the field scattered throughout the Dominion, the present situation may be summed up as follows:—

There is no reliable evidence to suggest any material increase in venereal disease during the past five years.

The general source of venereal disease (i.e., promiscuous intercourse) is ever present, but has shown the effects of altered social conditions, in that with the decrease in commercialized prostitution there has been undoubtedly an increase in the ranks of the amateur and semi-professional operator. Those individuals contributing to this increase, however, are in all probability those who would have repeted the wastage in commercialized prostitution were that institution still in existence.

There is to-day an increasing intelligence on the part of the average patient attending clinics with regard to his condition and the requirements necessary in his conduct and co-operation during treatment.

It is generally believed that there is an increase in the number of early cases of syphilis presenting themselves for treatment, and a decrease in late and congenital cases, and little or no change in comparative numbers of gonorrhœa. The increase in early syphilis cases, above mentioned, is believed to be due to the effects of educational propaganda and the increasing realization on the part of the public as to the seriousness of this disease and the necessity for early diagnosis and adequate treatment.

The majority of clinicians believe that the particular type of advertisement or propaganda so far most effective is that of the "satisfied customer" or, in other words, the ex-clinic patient. This has been borne out by conversations with many patients, who stated that they were recommended to go to the clinic for treatment by friends who had either been patients themselves or had known patients clinic treated. In the old days many of these individuals would have been recommended by friends to go to a "quack" or to the corner drug store or some advertised patent medicine.

This has been particularly noted in connection with women patients, who are naturally averse to seeking medical aid for venereal disease. The nurses attached to the clinics carry out a follow-up service with regard to the women patients, and as a result of the friendly professional relationship between nurse and patient, the latter is prevailed upon to remain under treatment longer than she otherwise would, and through one patient the nurse frequently gets in touch with another who is then persuaded to obtain clinic treatment. It is generally conceded that the friendly "personal touch" obtaining in an efficient clinic staff is a more efficacious form of education than lectures or literature propaganda, although the latter have their place as well in the general campaign against the evil of venereal disease.

Compulsory treatment of infected individuals confined in jails, penitentiaries, etc., is another feature which is progressing satisfactorily in the general scheme of venereal disease control.

During the past year there has been a further improvement in co-operation on the part of the general practitioner with the provincial health authorities as regards reporting the number of venereal disease cases under private treatment. This is very encouraging and it is hoped that very soon this co-operation will be such as to make possible the compilation of reliable statistics, yearly comparisons of which will indicate the variance in venereal disease incidence throughout the country.

The provincial government expenditures in connection with venereal disease control are augmented by the federal Government grant of \$100,000 allotted as follows:—

Alberta	\$ 6,504 21
British Columbia	5,798 23
Manitoba	6,743 67
New Brunswick	4,287 22
Nova Scotia	5,790 00
Ontario	32,425 93
Prince Edward Island	979 47
Quebec	26,098 47
Saskatchewan	8,372 80
Department of Pensions and National Health for administrative purposes	3,000 00
Total	\$100,000 00

DIVISION OF CHILD WELFARE

MATERNAL WELFARE

This subject continues to occupy a foremost place at meetings of medical and other associations, in the daily press and in medical journals.

Canadian Medical Association.

The Maternal Welfare Committee of the Canadian Medical Association continued its work during the year and presented its first report at the annual meeting of the association in June, 1929, in Montreal.

The report reads in part as follows:—

"In considering the question of maternal welfare your committee undertook an analysis of the available vital statistics of the country and was impressed by two outstanding facts: first, that a very large percentage of the mothers who died had had no ante-natal care; and second, that a remarkably large number of deaths was due to two causes, viz., the toxæmias of pregnancy and puerperal infection, diseases which, in view of recent advances made in obstetric practice, might almost be placed in the class of preventable diseases.

"Your committee, therefore, came to the conclusion that existing conditions might be greatly improved by educating the public as to the value of ante-natal care, and by impressing on the profession the necessity of giving to each expectant mother intelligent and conscientious ante-, intra- and post-natal care.

"Regarding the education of the public it was found that the women of the country had already become active in this field through a Committee of the National Council of Women of Canada.

"Your committee would recommend that this work receive the endorsement of the Canadian Medical Association.

"Regarding the profession, your committee begs to recommend that a list of suggestions concerning the management of obstetrical patients, a copy of which is herewith submitted, be sent to each medical practitioner throughout the Dominion, either direct from the Canadian Medical Association headquarters, or through the provincial, district or county societies.

"Your committee further recommends that in each provincial, district and county medical society at least one meeting each year be set aside for the consideration of preventive obstetrics."

The report was received and adopted and the committee was continued for the year 1929-30.

Academy of Medicine, Toronto

Another Committee on Maternal Welfare which has continued its work during the year is that appointed by the Academy of Medicine, Toronto. The president, Dr. F. W. Marlow, stated in his annual report that this committee is one of the most important ever appointed by the academy and that it has "done much commendable work, placing the academy well to the front in the consideration of this very important phase of public health. There are many years' work ahead of them and it is hoped that the entire fellowship will encourage their efforts to promote harmonious discussion and activity. Great care should be taken to continually strengthen this Committee and to have it thoroughly representative of all interests."

A special meeting of the council of the academy was held for the consideration and approval of this report.

Federated Women's Institutes

At the Sixth Biennial Convention of the Federated Women's Institutes of Canada held in the University of Saskatchewan, Saskatoon, Sask., June 17-21, 1929, the Special Committee on Maternal Welfare reported in part as follows:—

"When considering the question of pre-natal care one's thoughts are apt to be confined to the narrow limits of its clinical aspect on the threshold of which Institute members as such would certainly be justified in protesting, 'There is nothing we can do'. Fortunately there is a much wider field than that, as our medical men were quick to point out, a field in which institute members can do something."

Other Voluntary Societies

The Victorian Order of Nurses, St. Elizabeth's Visiting Nurses' Association, the Babies' Dispensary Guild of Hamilton, the London Child Welfare Association, the Child Welfare Council of Calgary, the Canadian Council on Child and Family Welfare and other organizations have made great efforts to put forward the necessity for pre-natal care. The London Child Welfare Association writes, "Each time any of our nurses gives a talk on child welfare she stresses the pre-natal side of the work. In fact, ever since your report on maternal mortality called special attention to this field, this propaganda has gone on here and we feel is now beginning to get results." The infant mortality rate for London is 58.7 and there is a marked reduction in neo-natal mortality.

National Council of Women

At the annual meeting of the National Council of Women at Saskatoon on June 12, 1929, the report of the Special Committee on Maternal Care received much attention. This committee recognized its function to be the promotion of interest and activity in local communities in reference to maternal mortality and maternal welfare and to this end issued letters, questionnaires and leaflets on these subjects which met with marked appreciation.

INFANT MORTALITY AND MATERNAL MORTALITY

The Preliminary Report of Vital Statistics of Canada for 1929 issued by the Dominion Bureau of Statistics gives the following figures:—

INFANT MORTALITY

Deaths of children under 1 year (exclusive of still-births)—

1926	23,692
1927	22,010
1928	21,195
1929	21,657

88,554

INFANT MORTALITY—*Concluded*

Rate per 1,000 living births—

1926	101.8
1927	94.0
1928	89.5
1929	92.2

MATERNAL MORTALITY

Deaths from puerperal causes—

1926	1,317
1927	1,300
1928	1,331
1929	1,337

5,285

Rate per 1,000 living births—

1926	5.7
1927	5.6
1928	5.6
1929	5.7

In some parts of Canada the infant mortality in 1929 was less than 50 per 1,000 living births and the Victorian Order of Nurses, who took care of 14,218 obstetrical cases under the direction of physicians in 1929 had only 28 maternal deaths, or 2 per 1,000 living births.

CHILDREN NEEDING SPECIAL CARE

Disabled Children.

Perhaps more progress in work for disabled children has been made this year than ever before. The preliminary and informal Conference on Dominion Organization for this work, arranged by request to take place at this department on November 23, 1929, the organization of the Quebec Provincial Society for Crippled Children in Montreal on February 11, 1930, by representatives of thirty-seven different agencies in the province of Quebec, the Annual Meeting of the International Association for Crippled Children at the Royal York Hotel, Toronto, March 17-19, and the remarkable success of the efforts of public health officials, physicians, parents, the press and the general public in the summer and early autumn of 1929 to protect children against anterior poliomyelitis all combined to place work for disabled children in Canada on a better basis.

Mental Health.

Alberta.—An important Survey on Mental Disease and Mental Defect was conducted in Alberta in December, 1929, and January, 1930, by a Mental Hygiene Commission. Early examination and treatment where necessary, children's clinics, and a new institution for mentally defective children are among the recommendations of the commission.

Under-Nourished Children.

The important subject of malnutrition continues to receive attention, and assistance has been given to child welfare workers in preparing diet-lists for under-nourished children.

The Pre-School Child.

Increased attention has been given during the year to the health and welfare of the pre-school child.

Four special clinics for pre-school children were opened in Toronto in February, 1930. It is now generally recognized that most of the defects and diseases of children originate at this time and preventive measures therefore are then most successful.

NATIONAL RESEARCH COUNCIL

Tuberculosis.

At the meeting of the Tuberculosis Advisory Committee of the National Research Council, the chief subjects of interest in connection with Child Welfare were:—

The report of Dr. R. G. Ferguson, on Tuberculosis Research and treatment for Indian School Children at the File Hills Reserve and the Fort Qu'Appelle Reserve, the extension of this work to pre-school children and the means taken to secure medical and public health nursing care for these children and the report of Professor Klotz, University of Toronto, of further work done by Dr. Rae Price re "Tuberculosis in Children" and the pasteurization of milk.

DEPARTMENT OF IMMIGRATION AND COLONIZATION

Women's Branch.

Constant co-operation has been maintained with the Women's Branch and we are much indebted to the superintendent for making it possible for us to help a number of mothers and children, unaccompanied women coming to Canada and domestic assistants.

JUVENILE DELINQUENTS

THE JUVENILE DELINQUENTS ACT

An Act respecting Juvenile Delinquents, amended, was passed by the House of Commons on May 20 and by the Senate with further amendments, on May 28. These amendments were concurred in by the House of Commons on June 3, 1929.

The Juvenile Delinquents Act was proclaimed in Moncton and King's county, N.B., and in the county of Hants, N.S., as announced in the *Canada Gazette* of January 4, 1930.

JUVENILE DELINQUENTS AND TRUANCY

On January 31, 1930, a deputation was received by the Prime Minister of Ontario. The deputation stated that:—

"1. There are a large number of boys and girls becoming delinquent whose educational background does not fit them for industrial life.

"2. It is exceedingly difficult to place large numbers of boys and girls in employment because of their lack of adequate training.

"3. The majority of our vagrants, truants and serious behaviour problems have been found to be those of the non-academic class.

"4. These boys and girls are going out into industrial life, not only unprepared but in many cases with an anti-social attitude, due to conditions which compel them to take certain school training for which they are not fitted.

"In view of these facts we believe that there is an urgent need of a change in the character of the training given to certain types of children; and would suggest that certain schools or classes be set aside for special training of the non-academic children who will be entering our trades and industries.

"These points were supported by a signed statement from the Head of the Employment Department, Massey-Harris Company, showing that for 1,499 boys under the age of twenty who left the employment of the Massey-Harris Company voluntarily, or were discharged for cause, from January 1, 1922, to December, 1929, the average length of service for each boy was nine weeks; 115 were employed for one day only, and only 107 were employed for over six months and stating 'that the bulk of these boys belong to the non-academic class who do not care for the normal type of public school education.'

"A committee appointed by the Teachers' Institute, No. 6, Toronto, to make a study of the 'Non-Academic Problem in Toronto Public Schools' submitted the following:—

"WHEREAS

"1. According to statistics gathered from the reports of twelve representative schools, 39 per cent of the pupils in the Junior 1st to Senior 3rd Grades inclusive, repeat their grades from one to four times before promotion is gained.

"2. These repeaters are costing the Board of Education \$90 per year, per pupil.

"3. According to the psychiatric reports, 52 per cent of our public school pupils are non-academic."

"4. Principals of schools find that these pupils provide almost all our delinquents.

"5. The non-academic child being compelled to pursue the present public school course of study, often becomes discouraged, rebellious and anti-social.

"6. We believe the present course of study and equipment fails to meet the needs of the non-academic child.

"7. Because of inadequate training, too many boys and girls are leaving our public schools at the ages of fifteen to sixteen years, to drift through life.

"We, therefore, beg to suggest that certain public schools or portions thereof, be equipped for the training of 'non-academic' children."

Principal Richardson of the Regal Road School states that "at an age when most children expect to graduate into high school, namely, at fourteen years, there are 1,107 pupils 14 to 17 years of age, just *beginning* their third grade work for the *second time*. It is for these non-academic pupils possessing talents the standard course fails to develop, that a different training should be offered."

Some progress has been made in this matter of providing for "non-academic" pupils but it is still under consideration.

YOUNG PERSONS IN PENITENTIARIES

In the estimates passed by the House of Commons on June 14, 1929, the sum of \$600,000 was set aside to establish two institutions for the reception and training of juvenile adults serving terms in penitentiaries. Out of 2,769 inmates cared for in our penitentiaries during the official year ended March 31, 1929, those under twenty years of age numbered 322 and those between twenty and thirty years numbered 1,274.

In the sessions of the American Prison Association in Toronto, September 18-28, 1929, Borstal methods and other methods of prison reform for juvenile delinquents occupied a large part of the program.

CORRESPONDENCE CLASSES

The following provinces have now established Correspondence Classes: Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. There has been a great increase in this work during the year. Letters written to the parents of correspondence class pupils in co-operation with the provincial Directors of Correspondence Classes have resulted in many inquiries in regard to child welfare and requests for "The Little Blue Books."

The following reports are quoted:—

Alberta.—"The work has increased tremendously. This was due to some extent to the fact that a large number of schools had to close early in the winter because of lack of finances consequent upon a partial crop failure. An extremely cold winter, too, prevented many pupils from attending schools which were operating, and it was here that the Correspondence School was able to be of service to a very large number of under-privileged children.

The work has meant something to a large number of pupils all over this province. Even to touch the homes with their problems does count for something, I find, and I am so glad to feel that something worth while may have been accomplished."

Saskatchewan.—"The scope of this school has been broadened to include children whose homes are more than 2½ miles from schools, if they are under 12 years of age, and those whose homes are more than 3½ miles from school, if they

are over 12. It also provides for those whose schools are closed during the winter months, with particular attention to those who are preparing to write the entrance examination. Our present enrolment is about 200 pupils."

British Columbia.—In this province there are three divisions of the work, including Correspondence Classes for public school pupils who are too far away from any school to attend regularly, also a series of classes for boys who have left school and are beginning coal mining and other work. These last are called Correspondence Classes in Coal Mining. In September, 1929, classes in high school subjects were offered for the first time and there is now an enrolment of about five hundred pupils.

SCHOOL CARS

The following is an extract from a letter received from the principal of a School Car in Ontario:—

"Everything seems to be going along very nicely on the school car. The attendance is nearly always perfect, and the pupils are doing good work. They seem to make good progress at every point. My attendance has increased since last year, both in day and night school. The night school is quite interesting. I have several men who are getting along in years, in fact I have one man who is fifty-nine years old. It is surprising the progress that this man has made in the short time that he has been attending. We hope that the younger pupils will be bigger and better Canadians when they grow up. I find that these people are ready and willing to make changes and improvements in their ways of living, if they only know how to do this."

ESKIMO CHILD WELFARE

By invitation of the Deputy Minister of the Interior, the subject of Eskimo child welfare and protection was brought before the Northwest Territories and Yukon Council at their meeting on January 15, 1930, and plans were suggested to secure the same.

A good deal has been done during the year to advance the welfare of the Eskimo. Another medical officer has been appointed, radio stations have been established, a large herd of reindeer is on the way to the Mackenzie Delta and the air mail reaches within the Arctic Circle. As Mr. D. Jenness points out in a memorandum, the future of the Arctic rests entirely with the Eskimo. "For no other people will live there permanently. With training and guidance from Europeans, they have greatly enhanced the value of Greenland and Alaska to the nations that own those countries, and with similar guidance they could develop our own Arctic domain."

"After we have studied the native problem over the world, we have come to the conclusion that in the last analysis the native problem is a moral one."—Hon. Charles Stewart.

During the month of November all eyes were turned to the Arctic. On November 4 word was received by wireless of the rescue of the MacAlpine party who had not been heard of since September 9. On his return, Colonel MacAlpine said that all the party were extremely grateful to the Eskimos who had been fathers to them in their time of need. It was stated repeatedly in the press that the party was saved by the Eskimo, who guided the party from Dease's Point to Cambridge Bay.

Major Burwash stated recently that he never travels in the Arctic without an Eskimo guide, no matter how short the distance may be.

INDIAN CHILD WELFARE

Conferences have been held with the Deputy Superintendent General of Indian Affairs, Dr. D. C. Scott, and later, at his request, with Dr. E. S. Stone, Director of Medical Services, in reference to child welfare among the Indians.

CO-OPERATION WITH VOLUNTARY SOCIETIES

Opportunities which occur daily, for co-operation with the Women's Institutes, Homemakers' Clubs, Cercles des Fermières, Victorian Order of Nurses, National Council of Women, Imperial Order of the Daughters of the Empire, Women's Missionary Societies, Catholic Women's League, Visiting Nurses' Associations, Canadian Council of Child and Family Welfare, Children's Aid Societies, Child Welfare Associations, Boy Scouts, Girl Guides, and other voluntary societies, form an important part of our work and are always accepted and appreciated.

Conference of Voluntary Societies

At the request of a number of voluntary societies with Dominion organization, a conference was arranged to take place at the department in November, 1929. Thirteen societies were represented. The discussion included a description of the organization and work of each association which showed that child and maternal welfare forms a very large part of their work.

INTERNATIONAL COUNCIL OF NURSES

The meeting of the International Council of Nurses in Montreal in July, 1929, was an important event and had a bearing on child welfare. The members of the Grand Council were received on July 3 at the Parliament buildings, by the Prime Minister.

By request, a supply of "The Little Blue Books" and "Request Cards" was placed in a booth of the Council Exhibit at the Montreal High School. This booth was visited by a large number of nurses and the supply of "The Little Blue Books" had to be renewed three times. Many Request Cards were filled out and returned to the Department.

PUBLICATIONS

The publications of the division, known as "The Little Blue Books," have had a wide circulation during the year, thanks to the valuable co-operation of the provincial authorities, the clergy of different churches, the local registrars of births, the Women's Institutes and other voluntary societies, and the help of the press. Two numbers of a new series—"The Leaflet Series"—have been published:—

National Health Publication No. 43, "Rickets: Prevention and Cure."

National Health Publication No. 51, "Keep Him Well: Be Prepared to Prevent Infantile Paralysis."

The more important parts of the latter, by the co-operation of the Canadian press, appeared in most of the newspapers of Canada and several newspapers republished it in full. About 65,000 copies of the leaflet were distributed and over four hundred additional requests were received before the end of the year, after the supply was exhausted.

In regard to the former, the principal of a school in Ontario writes of one of his pupils—a girl of fifteen—who will marry this year: "There are fourteen in her family. The children have bent limbs. She picked up 'Rickets.' She was surprised to hear that sunlight is something like a food. She asked, 'Is that why the agent at Ruel put the baby out even on cold, cold days?' What she will retail to her sisters, aunts, cousins, etc., will get more attention than anything we could say to them. She is a girl who can be a missionary."

The other "Little Blue Books" were distributed as usual and seem to have an increasing place among new Canadians, as well as among the general public. A teacher in Saskatchewan sends a list of Ukrainian ratepayers in his school

district: "Would you kindly send a set of Blue Books to them? The books sent to my school have been in constant use and they are not enough to go around."

An inspector of schools in British Columbia asked for a complete set of "The Little Books" for each of the seventeen Doukhobor schools of his inspectorate.

The wife of a missionary on an Indian reserve writes: "I have taken the Canadian Mother's Book around with me and shown the pictures to the Indian women. A week or so ago a group of them came and suggested that I translate it into Cree. They asked why the Canadian Mother's Book isn't also 'Kukinow Ininu Isquao o musin aikin'—Every Indian Woman's Book."

"The Canadian Mother's Book" was rewritten and enlarged during the year and the new edition will shortly be published.

The most encouraging letters received by this division are letters from mothers. A mother in the outposts writes, "I intend letting other farm women like myself know about those books so full of valuable information to lonely farm folks."

Requests for "The Little Blue Books" have been received from all parts of Canada, including the Magdalen Islands and Hay River on Great Slave Lake; also from the British Isles; Madras, India; Colombo, Ceylon; Australia, New Zealand, South Africa, the United States of America, Germany, Holland and Belgium.

DIVISION OF HOSPITAL ADVISORY SERVICES

The pertinent inquiries concerning hospitals of the Dominion, made at the International Hospital Congress, held at Atlantic City, N.J., U.S.A., June, 1929, emphasized the necessity of a medium or channel whereby consultative advice on planning, equipment and general data on hospitalization might be available.

The congress, treating the question internationally, passed a resolution advocating that central bureaus were essential if hospital work was to progress on parallel lines with the advance being made in other phases of human welfare, and results would only be obtained by centralization.

The Division of Hospital Advisory Services is fulfilling the demand as outlined above by its activities in advising in consultation with provincial governments, municipalities, hospital boards and others upon the many phases of hospitalization, comparable to the requirements of health measures being practised to-day.

Bibliographies are compiled by request upon any subject coming within the scope of the division.

The Canadian Medical Association's Annual Report, 1930, refers to the much needed advice of this division as a supplement to its own study of general problems, and further expresses appreciation of the close co-operation existing.

The exhibit of Canadian hospitals at the International Hospital Congress excited the enthusiasm and interest of the delegates. Those from Egypt, Germany and South Africa desired that copies of plans of some of the buildings be forwarded to them.

One prominent feature of the exhibit presented by the department was that for the insulation of buildings, both for sound and climatic conditions. The method developed by the division for outlying districts of the Dominion was deemed to be suitable to meet similar conditions which prevail in Norway, Poland, Switzerland and Australia.

The principle, practice and construction of infectious diseases hospitals, as observed in other exhibits at the congress, rather emphasized the fact that this phase of hospitalization has not yet been fully grasped by those responsible for such units.

When it is realized that about one out of every sixty people suffer each year from infectious disease, it can be readily seen that the subject of communicable disease is well worth serious consideration by those people interested in the health of the people.

It is generally considered that a community, for its own protection, is responsible for the care and treatment of its cases of communicable disease. A hospital is part of a community, so it would seem reasonable to suppose that a general hospital in a community, where no other provision is made, should at least feel some responsibility for the treatment of cases of infectious disease.

The economic loss due to the method of handling communicable diseases in rural parts of the Dominion must be considerable; besides which there is the disadvantage of the possibility of improper isolation with the resultant spread of disease in and out of the house, to say nothing of the possibility of the patients themselves having less efficient treatment.

The considered opinion of outstanding hospital authorities to-day is that the ordinary general hospital, in respect of communicable disease, should assist in the provision of adequate facilities for the isolation and care of communicable disease.

Sanatoria, a subject exciting the interest of most people to-day, formed a prominent part of the exhibit. The principal phases stressed were orientation, co-ordination and cost.

Marked progress is being made in the education of patients of school age in sanatoria.

Heliotherapy is playing a larger part than ever in the treatment of tuberculosis. In fact, no sanatorium worth the name would be complete to-day without the plan of including facilities for such treatment.

It would seem that exhibits, similar to the one now under review, should be available at all such meetings and amplified so as to include all kinds of hospitalization throughout the Dominion.

The officials of the International Council of Nurses Congress, held in Montreal, July, 1929, requested that the exhibit be available at that congress, which request was acceded and, in the words of the chairman of the committee, the officials were grateful to the Government for its gesture in providing such an educational exhibit, and further that it had been most beneficial to those interested in such work.

The division advised on many projects during the fiscal year and an enumeration of these is deemed of interest, namely:—

General Hospital, Kentville, N.S.

Aberdeen General Hospital, New Glasgow, N.S.

General Hospital, Havre St. Pierre, P.Q.

Grace Dart Home Hospital, Montreal, P.Q.

Convalescent Hospital, Montreal, P.Q.

Bruchesi Institute, Montreal, P.Q.

University of Montreal, Montreal, P.Q.

Hotel Dieu, Chicoutimi, P.Q.

St. Michael's Hospital, Lethbridge, Alta.

Rural Tuberculosis Hospitals for Western Provinces.

General Hospitals, North West Territories.

Public meetings were held in connection with some of these projects and addressed by the director of the division, tentative sketches prepared and consultations held with provincial Government officials, as also medical and hospital boards.

With the view of furthering education upon hospitalization, a series of articles is now appearing in the Journal, Royal Architectural Institute of Canada, under the caption of "Hospitals—Their Planning and Equipment."

By arrangement with the Canadian Medical Association, these articles are available to the members of that organization, the result anticipated being that, with the combined efforts, many of the blunders perpetrated in the past may be averted.

At the request of the University of Toronto, lectures were given by the director of the division to the students in the Diploma in Public Health Class, covering hospitalization of infectious diseases.

In these lectures, emphasis was made that actual experience on this Continent and Europe has established the fact that asepsis and not the interruption of air currents is the basic factor in controlling infection in hospitals.

Up to the time of Pasteur, Koch and other bacteriologists, practically nothing was known about the causes and modes of transmission of infectious disease. Previous to their discoveries it was believed that these epidemic diseases had their origin in decayed matter, bad smells, arose from swamps or were visitations of the wrath of God, and it is little wonder that hospitalization and home isolation have had a very recent origin.

Previous to 1890, it was universally believed that infectious diseases were transmitted principally by air, and it was not until the year 1900 that the Pasteur Hospital in Paris was constructed and was the first hospital to isolate in different rooms on the same ward floor different kinds of infectious diseases, as also the first to embody the principle that contact infection is the only real factor in the spread of infectious diseases.

Another pertinent remark made in the lectures was that to interrupt contact, direct and indirect, between patients in a hospital ill with different contagious diseases, depends upon proper construction, equipment and administration.

Isolation hospitals of less than fifty beds are not economical to administer and should be attached to general hospitals where the expense will be less, better service rendered and, if properly managed, this can be done with safety.

Inter alia, it may be noted that the infectious diseases hospitals administered by the department have, in a large measure, been remodelled to conform with this modern conception and treatment of persons suffering from infectious diseases.

The division has been consulted upon the growing urge for convalescent hospitals for patients other than those suffering from acute diseases in general hospitals.

Every building is the expression of a utilitarian, and sometimes, also, of an artistic idea. Modern city conditions led to the development of skyscrapers. Our newer hospitals are likewise the result of economic necessity and the demands of modern medicine. The hitherto undeveloped possibilities of convalescent hospitals create a demand for adequate housing of this new social function.

The present-day idea of convalescent care is that of a creative, dynamic force, bringing into play all the resources of mind and body, of medicine and psychology, to offset the baneful effects of illness. It comprises play as well as rest; it invokes religious emotion and an appeal to reason; it calls for the exercise of mind as well as muscle; it furnishes comforts and stimulates purposeful effort; it provides dressings for surgical wounds and instills sound health habits; it aids the natural recuperative processes and develops social discipline; it expedites recovery and strengthens character.

The carrying out of this multiple aim requires policy, organization and an adequate plant.

The management of convalescent hospitals is also as difficult and quite as important as is the practice of medicine itself. In fact, in many instances, it is so intimately bound up with medicine that the two can not be successfully dissociated. The time has passed when some philanthropically inclined in-

dividual could donate or hire a farm house in the country, install a cook and a trained nurse on the premises, supply food and lodging, pay all the bills, and thus successfully promote convalescence. A place is not a convalescent home simply because it is in the country. Confusion as to just what convalescence means exists in the minds of many persons concerned; not only among the lay public, but among the physicians themselves, and only by a careful perusal of the problem it can be appreciated how complicated a matter it is to restore people, who are cured by the hospital, to a state of health where they can adequately bear the stress and strain of modern economic conditions.

If facilities for the entertainment and amusement of patients in convalescent homes are not provided, they readily fall into groups, talking about themselves, their ailments, their hospital experiences and their troubles, the worst possible atmosphere in which to regain health. What is required is supervised leisure, not idleness.

When those interested in convalescence measure the usefulness of their work by the quality of the service rendered, rather than by the number of persons passing through their doors, the whole subject will be placed on a sounder basis.

It is a great thing to care for and heal the sick, but it is no mean task to restore a man to health and render him able to play his part in life.

The philosophy of convalescent management is in its infancy. Continuous constructive criticism is needed if forward strides are to be made in this realm, the importance of which is gradually becoming recognized in the fields of curative as well as preventive medicine. There is more than a likelihood that under the pressure of economic and medical forces, increasingly larger investments, both philanthropic and municipal, will be made in convalescent institutions.

Housing is a live issue and plans and advice have been prepared and distributed in a generous measure throughout every Province in the Dominion.

The Quarantine Stations, Immigration Hospitals and Food and Drug Laboratories have further been remodelled to meet the requirements of the services, as also plans prepared for future projects when exigencies of the moment permit consummation.

The new Animal Breeding House for the Laboratory of Hygiene of the department sounds a new note in such projects, by featuring modern practice in insulation, heating, lighting and ventilation.

FINANCIAL STATEMENT

EXPENDITURE, BY SERVICES, FOR THE FISCAL YEAR 1929-30

Service	Gross expenditure		Refunds		Net expenditure	
	\$	cts.	\$	cts.	\$	cts.
Civil Government Salaries.....	182,427	68	79	98	182,347	70
Civil Government Contingencies.....	70,856	38	2,309	64	68,546	74
Food and Drugs.....	105,005	51	982	09	104,023	42
Opium and Narcotic Drugs.....	40,220	27	356	90	39,863	37
Proprietary or Patent Medicines.....	3,591	03			3,591	03
Laboratory of Hygiene.....	9,384	06	295	02	9,089	04
Pollution of Inland Waters.....	16,579	10	582	74	15,996	36
Marine Hospitals, etc.....	255,703	82	2,054	51	253,649	31
Quarantine.....	182,610	33	467	50	182,142	83
Leprosy.....	24,247	82	0	65	24,247	17
Public Works Health Act.....	3,610	00			3,610	00
Immigration Medical Inspection.....	300,607	72	13,436	09	287,171	63
Veneral Diseases.....	97,987	03			97,987	03
Gratuities, C.S. Act, Sec. 56.....	785	83			785	83
St. John Ambulance Association.....	5,000	00			5,000	00
Victorian Order of Nurses.....	10,000	00			10,000	00
Canadian Council on Child Welfare.....	10,000	00			10,000	00
Canadian Dental Hygiene Council.....	5,000	00			5,000	00
Canadian Social Hygiene Council.....	20,000	00			20,000	00
Canadian Tuberculosis Association.....	25,000	00			25,000	00
Canadian National Committee for Mental Hygiene.....	20,000	00			20,000	00
International Council of Nurses.....	5,000	00			5,000	00
	1,393,616	58	20,565	12	1,373,051	46

REVENUE COLLECTED FROM VARIOUS SOURCES FOR THE FISCAL YEAR 1929-30

Service	Total revenue		Refunds		Net revenue	
	\$	cts.	\$	cts.	\$	cts.
"A"—Food and Drugs.....	9,782	30			9,782	30
"B"—Opium and Narcotic Drugs.....	16,422	07	631	30	15,790	77
"C"—Patent Medicines.....	7,442	50	661	50	6,781	00
"D"—Sick Mariners' Dues.....	210,426	53	1,104	98	209,321	55
"E"—Casual Revenue.....	41,409	64	60	00	41,349	64
	285,483	04	2,457	78	283,025	26

"A"—FOOD AND DRUGS NET REVENUE, 1929-30

Province	Licence		Analysis		Penalties		Costs		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Nova Scotia.....			45	00	25	00	10	00	80	00
New Brunswick.....			5	00					5	00
Prince Edward Island.....			5	00	900	00	301	80	1,316	80
Quebec.....	110	00	5,915	00	1,525	00	525	50	8,110	50
Ontario.....	145	00	10	00	25	00	35	00	70	00
Manitoba.....			15	00	25	00	10	00	50	00
British Columbia.....										
Foreign.....	150	00							150	00
	405	00	5,995	00	2,500	00	882	30	9,782	30

"B"—OPIUM AND NARCOTIC DRUGS NET REVENUE, 1929-30

Province	Business Licence	Import Licence	Export Licence	Penalties	Seizures	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....	60 00					60 00
New Brunswick.....	80 00			300 00		380 00
Prince Edward Island.....						
Quebec.....	1,005 00	250 00	70 00	4,935 10	835 94	7,096 04
Ontario.....	1,130 00	75 00	5 00	1,350 00		2,560 00
Manitoba.....	250 00					250 00
Saskatchewan.....	55 00			74 73		129 73
Alberta.....	155 00			1,235 00		1,390 00
British Columbia.....	115 00	30 00		3,750 00		3,895 00
Foreign.....	25 00	5 00				30 00
	2,875 00	360 00	75 00	11,644 83	835 94	15,790 77

"C"—PATENT MEDICINES NET REVENUE FOR 1929-30

Province	Penalties	Registration Fees at 2.00 each	Licence Fees at \$1.00 each	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....		22 00	95 00	117 00
New Brunswick.....		40 00	110 00	150 00
Prince Edward Island.....			11 00	11 00
Quebec.....	5 00	238 00	1,611 00	1,854 00
Ontario.....	60 00	464 00	2,531 00	3,055 00
Manitoba.....		53 00	252 00	305 00
Saskatchewan.....		44 00	65 00	109 00
Alberta.....		16 00	78 00	94 00
British Columbia.....		42 00	152 00	194 00
Foreign.....		134 00	758 00	892 00
	65 00	1,053 00	5,663 00	6,781 00

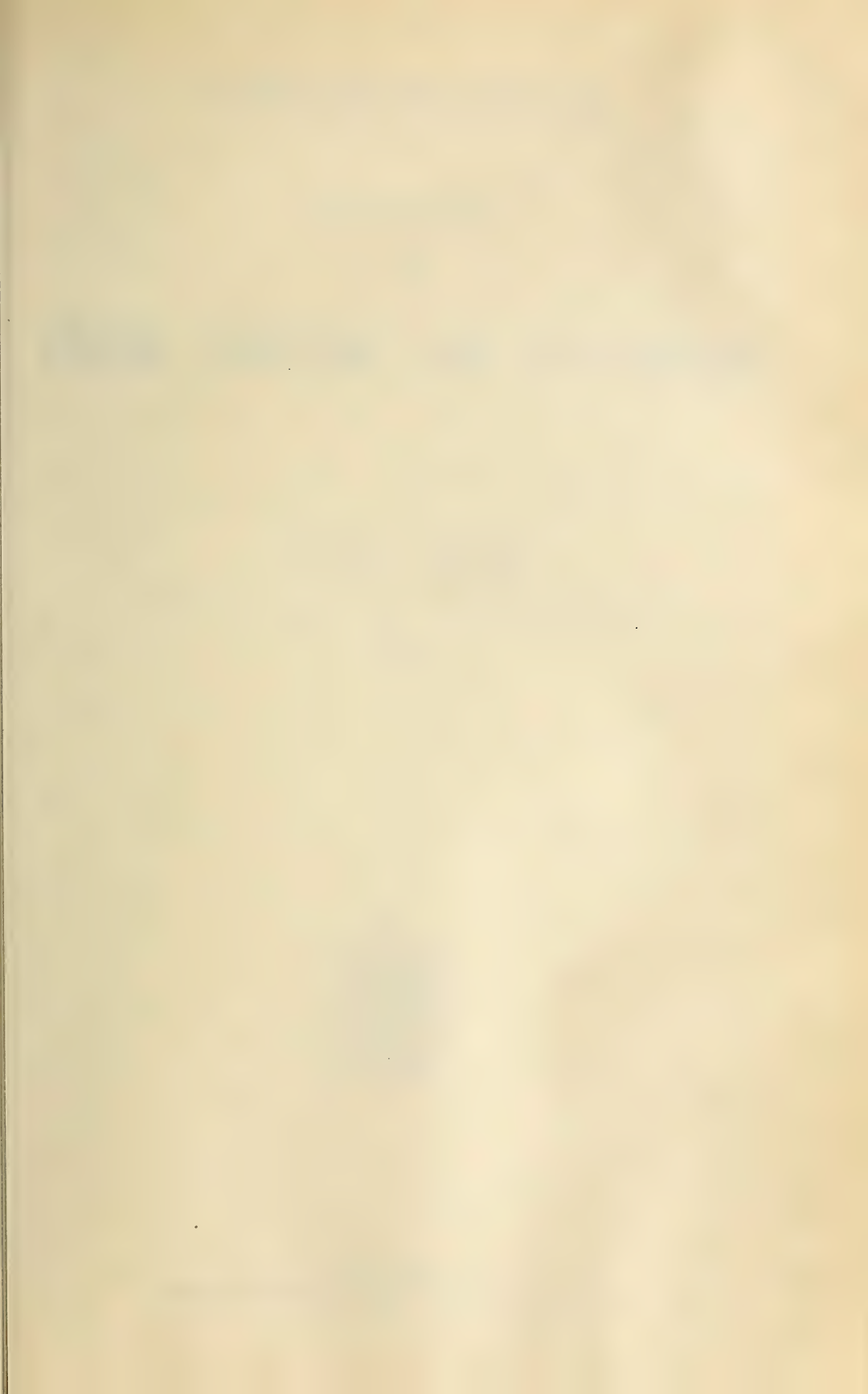
"D"—SICK MARINERS' DUES REVENUE FOR 1929-30

Province	Total	Refunds	Net
	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....	56,647 17	340 72	56,306 45
New Brunswick.....	16,896 62	71 58	16,825 04
Prince Edward Island.....	1,050 82		1,050 82
Quebec.....	49,723 60	252 88	49,470 72
British Columbia.....	86,108 32	439 80	85,668 52
	210,426 53	1,104 98	209,321 55

"E"—CASUAL REVENUE FOR 1929-30

	Net total
	\$ cts.
Fumigation of ships.....	15,070 54
Hospital care of passengers.....	24,103 50
Use of launch.....	1,800 00
Refunds of previous year's appropriations.....	368 49
Sundry sales.....	7 11
	41,349 64







DOMINION OF CANADA

DEPARTMENT

OF

PUBLIC PRINTING AND STATIONERY

ANNUAL REPORT

FOR THE FISCAL YEAR ENDED MARCH 31

1930



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930

*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I., G.C.M.G.,
G.C.I.E., G.B.E., Governor General and Commander in Chief of the Dominion
of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Public Printing and Stationery for the year ended March 31, 1930.

I have the honour to be,

Your Excellency's most obedient servant,

C. H. CAHAN,

*Secretary of State and Minister charged with administration of
Department of Public Printing and Stationery.*

OTTAWA, September, 1930.

INTRODUCTORY STATEMENT

SIR,—The fiscal year has passed without particular feature, activities of all branches continuing at a high level. The gross cash turnover for the year was \$8,211,753.63, or \$760,757.63 more than for the preceding fiscal year; this increase is reflected in the two main divisions of the department, printing sales for the year at \$2,482,866.95 showing an increase over the previous year of \$294,526.13, and stationery sales showing at \$1,440,339.64, an increase over the previous year of \$96,312.26. Sales of publications on the other hand showed a reduction, the revenue dropping from \$66,606.87 for the fiscal year 1928-29 to \$55,972.68 for the past year, but the reduction is explained by the extensive sales during 1928-29 of sets of the Revised Statutes of Canada, 1927, large numbers of copies of which were purchased by departments and by the public; the expenses during the year were correspondingly reduced. In the case of the *Canada Gazette* the receipts at \$93,890.47 were \$13,676.51 in excess of those of the preceding fiscal year; the expenditure at \$34,783.83 was \$124.09 less. The revenue from waste paper amounted to \$16,700.04, \$2,800 more than for the preceding year; this refers to waste paper of all departments, the revenue being derived from a contract secured by tender and spread over a number of years.

PERSONNEL

The personnel at the end of the year varied but fractionally from the figures of a year earlier, standing on March 31, 1930, at 715, as compared with 714 a year earlier. The figures at different periods during the past forty years have been as follows:—

1891 (December 31).....	341	1922 (March 31).....	742
1901.....	511	1923.....	705
1911.....	861	1924.....	719
1915.....	1,160	1925.....	685
1916.....	1,240	1926.....	689
1917.....	1,300	1927.....	690
1918.....	1,169	1928.....	696
1919.....	1,134	1929.....	714
1920.....	703	1930.....	715
1921.....	730		

It became necessary during the year to create nine new positions, several of which, however, replaced positions which had become unnecessary and were abolished; the net result of the changes was an increase from 697 on August 1, 1927, to 701 on March 31, 1930, in the number of positions on the formal establishment laid down by the Civil Service Commission, none of the changes effected involving a senior or executive position. The difference between the number on the establishment, 701, and the staff as on March 31 is accounted for by 15 vacancies, arising chiefly out of illness, and 29 temporary employees; several temporaries are in necessary replacement of absentees and the remainder because of pressure of work in certain divisions, the employees concerned being in all cases of the lower grades.

NEW PLANT

The new plant purchased during the year included the following major items:—

<i>Composition Branch—</i>	
1 material-making machine with gas regulator and motor for Monotype Division.....	\$ 2,006 95
2 linotype machines complete with 4 moulds and 108 mould liners for Linotype Division.....	9,789 42
<i>Pressrooms—</i>	
3 Miehle vertical presses.....	10,588 00
2 automatic feeding machines.....	6,125 00
<i>Bindery—</i>	
1 rounding and backing machine.....	5,194 67
1 book backing machine.....	480 00
1 Dexter folding machine.....	8,017 00
<i>Shipping and Receiving Division—</i>	
1 utility express motor truck.....	1,980 00
1 business coupe.....	1,412 00
<i>Mechanical Division—</i>	
1 lathe.....	3,437 35

These various purchases were by way of replacement as a rule; in the case of the Shipping Division the smaller motor car was an addition to the delivery equipment, increasing the effective vehicles to five; quick deliveries being frequently needed, particularly during a session of Parliament, it was deemed more convenient as well as more economical, both as to purchase price and as to running expense, to buy a small car rather than the ordinary motor truck, of which there are four in the delivery branch. Under the practice of recent years one motor truck has been purchased in replacement each year.

Material purchased during the year amounted to \$2,477,925.27, this sum being about evenly divided between the Stationery Branch, from which supplies are drawn for the Houses of Parliament and the various Government departments, and the Printing Branch, the latter including all printing, chiefly lithographing, executed outside the Printing Bureau itself. Of the total amount the greater part, namely, \$2,426,292.68, was purchased in Canada. It should be stated here that the general principle pursued with respect to purchases is to buy goods of Canadian manufacture when these are available of qualities and at prices approximately equal, and if goods of Canadian manufacture are not available then to give the same degree of preference to goods made within the British Empire.

INCREASE IN WAGE RATES

The question of an increase in the wage rate in the Printing Branch was raised at about the close of the fiscal year ended March 31, 1928. As has been pointed out in previous reports the matter is governed by section 16, paragraph 3, of the Public Printing and Stationery Act (Chapter 162, R.S.C. 1927) which provides with respect to wages of the printing classes that "no increase of any such rate of wages shall be made so as to raise the rate above that which is at the time of such increase paid for similar work in the cities of Montreal and Toronto". Careful examination of the wage rates paid in the cities of Montreal and Toronto was made and an increase of slightly over five per cent was allowed generally, bringing from \$38 to \$40 the weekly wage of the Composition, Press and Bindery Branches, with proportionate adjustments in other grades of workers. In the case of the Stereotype Branch, the wages at \$42 weekly again reached a slightly higher level than that of the other printing trades.

The attached table shows the weekly wage rates in the printing trades as paid at various periods in the Department of Public Printing and Stationery as from 1887 to the present time:—

WEEKLY RATES OF WAGES OF PRINTING TRADES FROM 1887 TO 1929

Year	Proof- readers	Copy- holders		Hand Com- positors		Linotype Operators		Mono- type Operators		Mono- type Caster Runners		Stereo- typers		Press- men		Press- feeders and Bindery Men*		Book- binders		Bindery Girls and Women Pressfeeders	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1887.																					
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1904.			18 00		14 50																
1905.			18 00		14 50																
1906.			18 00		16 65																
1907.			18 00		17 20																
1908.			18 00		15 00																
1909.			18 00		16 00																
1910.			20 00		16 00																
1911.			20 00		17 00																
1912.			20 00		18 50																
1913.			22 00		20 00																
1914.			22 00		20 00																
1915.			22 00		20 00																
1916.			22 00		20 00																
1917.			24 00		24 00																
1918.			24 00		24 00																
1919.			32 00		32 00																
1920 to Mar. 31, 1927.			36 00		36 00																
1927—from April 1.			38 00		38 00																
1929—from April 1.			40 00		40 00																

*Bindery Men—New class April 1, 1927.

DEATHS, SUPERANNUATIONS, ETC.

During the year five employees, all of the mechanical division, died, and four members of the Civil Service division were superannuated under the provisions of the Civil Service Superannuation and Retirement Act, three on account of ill health and one because of age.

F. A. ACLAND,
King's Printer.

Hon. C. H. CAHAN, LL.D., K.C.,
*Secretary of State and Minister charged with the administration of
Department of Public Printing and Stationery.*

OTTAWA, CANADA,
September, 1930.

F. A. ACLAND, Esq.,
King's Printer and Controller of Stationery.

SIR,—I have the honour to submit a report of the work executed for Parliament and the various departments in the Government Printing Bureau and in commercial lithographing, engraving and printing establishments during the fiscal year ending March 31, 1930, contained in the following tabulated statements:—

1. Annual reports.
2. Supplementary reports.
3. Routine parliamentary work.
4. House of Commons and Senate Debates.
5. Statutes.
6. *Canada Gazette*.
7. Voters' lists.
8. Pamphlets and miscellaneous book-work.
9. Statement of other letterpress departmental work.
10. Statement of books bound.
11. Pads made.
12. Making and stamping of prepaid Post Office envelopes.
13. Die stamping and letter and note headings and envelopes.
14. Loose-leaf work.
15. Lithographed maps, plans, cheques and forms.
16. Half-tones, line cuts, electros and dies made.
17. Lithographing and Engraving Division—Record of Work for Fiscal Year, 1929-30.
18. Comparative statement of presswork.

Respectfully submitted,

P. M. DRAPER,
Director and Superintendent of Printing.

OTTAWA, August 5, 1930.

TABLE No. 1—Annual Reports to Parliament completed during the Fiscal Year 1929-30

Title of Document	Number of Copies	Number of Pages	Total Number of Printed Pages	Cost
ENGLISH				
Agriculture, 1928-29.....	5,500	156	858,000	\$ 1,032 92
Civil Service Commission, 1928.....	750	96	72,000	690 66
Commissioners of Patents, 1928-29.....	800	16	12,800	64 51
Electricity and Gas Inspection Services, 1928-29.....	817	72	58,824	502 15
Immigration and Colonization, 1928-29.....	2,536	92	233,312	652 83
Indian Affairs, 1928-29.....	900	112	100,800	822 12
Interior, 1928-29.....	1,275	168	214,200	943 29
Labour, 1928-29.....	3,000	196	588,000	1,273 15
Marine and Fisheries (Fisheries Branch), 1928-29.....	1,250	280	350,000	1,543 20
Marine and Fisheries (Marine), 1928-29.....	800	204	163,200	1,173 55
Mines, 1928-29.....	3,435	64	219,840	424 60
National Defence (Militia and Air Services), 1928-29.....	750	96	72,000	475 27
National Defence (Naval Service), 1928-29.....	700	32	22,400	124 91
National Revenue, 1928-29.....	1,025	106	108,650	726 77
Penitentiaries, 1927-28.....	1,850	48	88,800	255 76
Penitentiaries, 1928-29.....	1,875	44	82,500	247 22
Pensions and National Health, 1928-29.....	3,225	132	425,700	810 26
Postmaster General, 1928-29.....	1,114	112	124,768	881 16
Public Accounts, 1928-29.....	1,400	178	249,200	1,308 51
Public Printing and Stationery, 1928-29.....	425	106	45,050	628 31
Public Works, 1928-29.....	760	228	173,280	1,189 57
Railway Commission, 1928.....	700	124	86,800	596 14
Railways and Canals, 1928-29.....	925	154	142,450	937 59
Royal Canadian Mounted Police, 1928-29.....	1,425	144	205,200	744 11
Secretary of State, 1928-29.....	750	714	535,500	4,485 93
Secretary of State for External Affairs, 1929.....	850	28	23,800	156 15
Trade and Commerce, 1928-29.....	1,025	56	57,400	325 23
Weights and Measures Inspection Service, 1928-29.....	650	20	13,000	135 32
BILINGUAL				
Auditor General—Auditeur général, 1928-29 (Vol. I).....	1,657	372	616,404	14,484 74
Auditor General—Auditeur général, 1928-29 (Vol. II).....	1,556	1,286	2,001,016	
National Revenue—Shipping Report (Customs Division)—Revenu National—Navigation (Services des Douanes), 1929.....	650	124	80,600	902 60
Trade of Canada, 1927-28—Commerce du Canada, 1927-28.....	1,640	808	1,325,120	14,916 71
Trade of Canada, 1928-29—Commerce du Canada, 1928-29.....	1,640	846	1,387,440	14,641 80
FRENCH				
Affaires Indiennes, 1927-28.....	181	72	13,032	268 89
Agriculture, 1927-28.....	1,896	152	288,192	715 83
Chemins de fer et Canaux, 1927-28.....	230	138	31,740	719 06
Commerce, 1927-28.....	205	48	9,840	246 16
Commerce, 1928-29.....	205	56	11,480	282 12
Commissaire des brevets, 1928-29.....	350	16	5,600	91 69
Commission des chemins de fer du Canada, 1927.....	225	600	135,000	1,653 96
Commission du Service Civil, 1928.....	225	116	26,100	677 26
Compte publics, 1928-29.....	215	180	38,700	806 26
Défense Nationale (Service Naval), 1928-29.....	200	32	6,400	133 17
Défense Nationale (Services de la Milice et de l'Aéronautique), 1928-29.....	200	96	19,200	426 23
Immigration et Colonisation, 1927-28.....	400	104	41,600	488 21
Impressions et Papeterie publiques, 1928-29.....	150	106	15,900	356 39
Intérieur, 1927-28.....	225	154	34,650	616 28
Marine et Pêcheries (Marine), 1928-29.....	250	216	54,000	1,098 14
Marine et Pêcheries (division des Pêcheries), 1928-29.....	300	308	92,400	1,416 91
Mines, 1927-28.....	1,371	74	101,454	415 30
Pénitenciers, 1927-28.....	325	48	15,600	231 25
Pensions et de la Santé Nationale, 1927-28.....	204	58	11,832	295 20
Postes, 1928-29.....	240	112	26,880	289 28
Revenu National, 1927-28.....	200	112	22,400	378 23
Revenu National, 1928-29.....	200	106	21,200	328 61
Santé, 1927-28.....	295	84	24,780	424 63
Secrétaire d'Etat, 1927-28.....	200	674	134,800	2,376 53
Secrétaire d'Etat aux Affaires extérieures, 1929.....	252	28	7,056	139 28
Service d'inspection des poids et mesures, 1928-29.....	140	20	2,800	106 51
Services d'inspection de l'électricité et du gaz, 1928-29.....	175	72	12,600	227 52
Travail, 1927-28.....	1,150	204	234,600	1,125 56
Travaux publics, 1928-29.....	200	240	48,000	1,318 58
Totals.....	58,064	11,440	12,225,890	85,750 08
Totals (March 31, 1929).....	50,299	10,114	9,949,902	64,742 55

TABLE No. 2—Supplementary Reports to Parliament completed during the Fiscal Year 1929-30

Title of Document	Number of Copies	Number of Pages	Total Number of Printed Pages	Cost
ENGLISH				
Public Archives, 1929.....	1,475	172	253,700	\$ cts. 966 79
BILINGUAL				
Report of the Chief Electoral Officer, By-Elections held during the Year 1929—Rapport du Directeur général des élections, élections partielles tenues pendant l'année 1929.....	640	16	10,240	81 09
FRENCH				
Archives publiques, 1929.....	650	172	111,800	699 95
Commission des pensions, 1927-28.....	110	20	2,220	88 98
Totals.....	2,875	380	377,940	1,836 81
Totals (March 31, 1929).....	3,131	208	175,360	943 27

TABLE No. 3—Statement showing the Routine Parliamentary Work, Year 1929-30

* In this table and in other tables which contain a column giving the total number of printed pages, the figures in the total column coincide, as a rule, with those obtained by multiplying the number of copies by the number of pages. In some cases, however, a printing job includes different sections or series which vary as to the number of copies and number of pages; the two first columns do not therefore multiply into the figures shown in the column representing the total number of pages printed. Cases of this class are denoted by an asterisk (*).

Title of Document	Number of Copies	Number of Pages	Total Number of Printed Pages
Votes and Proceedings.....	†1,884	1,042	*1,930,636
Procès-verbaux.....	†454	1,050	*464,376
Orders of the Day.....	†1,390	1,530	*2,155,828
Feuilleton.....	†330	1,420	*461,224
Senate Minutes.....	†1,478	686	*980,770
Procès-verbaux des Séances du Sénat.....	†330	712	*246,888
Public Bills.....	†1,962	824	1,616,688
Bills d'intérêt public.....	496	724	359,104
Private Bills.....	†1,247	1,126	1,404,122
Bills d'intérêt pivé.....	†355	1,070	379,850
Third reading Bills (Commons).....	†1,218	1,061	1,292,298
Bills en troisième lecture (Communes).....	†280	1,108	310,240
Third Reading Bills (Senate).....	†1,078	940	1,013,320
Bills en troisième lecture (Sénat).....	†295	848	250,160
Returns (for distribution or Sessional Papers, either or both).....	5,360	68	*65,440
Réponses (pour distribution ou pour insertion aux documents parlementaires, ou pour l'une ou l'autre).....	1,000	40	*16,000
Divorce cases.....	56,100	3,239	*1,376,575
Printing of Various Committee sittings.....	60,550	5,462	*11,821,100
House of Commons Journals, 1929.....	539	776	418,264
Journaux de la Chambre des Communes, 1929.....	180	756	136,080
Senate Journals, 1929.....	537	624	335,088
Journaux du Sénat, 1929.....	175	624	109,200
Appendix No. 1, 1926-27.....	138	74	10,212
Totals.....	137,385	25,804	27,153,463
Totals (March 31, 1929).....	220,363	27,618	25,649,206

† Average number of copies printed.

TABLE No. 4—Statement of the Work on the House of Commons and Senate Debates, Year 1929-30

* In this table and in other tables which contain a column giving the total number of printed pages, the figures in the total column coincide, as a rule, with those obtained by multiplying the number of copies by the number of pages. In some cases, however, a printing job includes different sections or series which vary as to the number of copies and number of pages; the two first columns do not therefore multiply into the figures shown in the column representing the total number of pages printed. Cases of this class are denoted by an asterisk (*).

Title of Document	Number of Copies	Number of Pages	Total Number of Printed Pages	Cost
				\$ cts.
House of Commons Debates—				
Unrevised Edition (English).....	†10,659	3,960	*28,974,916	21,576 71
Unrevised Edition (French).....	†1,228	3,640	*4,502,753	12,883 42
Revised Edition, 1929, 3 Vol. and Index (English).....	653	4,020	2,625,060	10,117 28
Revised Edition, 1929, 3 Vols. (French).....	206	3,934	810,404	7,184 00
Senate Debates—				
Unrevised Edition (English).....	1,840	536	986,240	1,703 67
Revised Edition, 1929 (English).....	537	422	226,614	1,139 92
Totals.....	15,123	16,512	38,125,987	54,605 00
Totals (March 31, 1929).....	17,330	22,163	43,345,962	65,287 47
Speeches: Extra copies ordered by Members and Senators.....	203,600	1,110	*2,503,200	1,802 99
Speeches: (March 31, 1929).....	399,850	922	*6,740,700	3,739 36

†Average number of copies printed.

TABLE No. 5—Statement of the work on the Statutes, Year 1929-30

	Number of Copies	Number of Pages	Total Number of Printed Pages	Cost
				\$ cts.
THE STATUTES				
English				
Parts I-II, 1929.....	6,000	728	4,368,000	7,577 79
French				
Parties I-II, 1929.....	1,500	742	1,113,000	3,221 75
Totals.....	7,500	1,470	5,481,000	10,799 54
Totals (March 31, 1929).....	45,920	11,716	44,009,984	125,653 94

TABLE No. 6—Statement of the work on the *Canada Gazette* for the Fiscal Year 1929-30

	Aggregate Annual Issue	Number of Pages in Volume
<i>Canada Gazette</i>	122,800	5,026
Extras.....	26,625	58
Totals.....	149,425	5,084
Totals (March 31, 1929).....	172,325	4,754

TABLE No. 7—Voters' Lists. (None printed in 1929-30)

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work, 1929-30

* In this table and in other tables which contain a column giving the total number of printed pages, the figures in the total column coincide, as a rule, with those obtained by multiplying the number of copies by the number of pages. In some cases, however, a printing job includes different sections or series which vary as to the number of copies and number of pages; the two first columns do not, therefore, multiply into the figures shown in the column representing the total number of pages printed. Cases of this class are denoted by an asterisk (*).

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
<i>Advisory Board on Tariff and Tazation—</i>			
ENGLISH			
Record of Public Sitzings.....	19,725	2,278	*2,224,850
FRENCH			
Compte rendu des audiences publiques.....	11,875	2,082	*494,600
<i>Agriculture—</i>			
ENGLISH			
The Conversion of Dry Roughage into a Succulent Feed (Bulletin No. 96—New Series).....	5,000	40	200,000
The Dairy Industry Act and Regulations—Acts, Orders and Regulations (No. 26).....	5,000	48	240,000
Selection of Lamb Cuts (Pamphlet No. 9—New Series).....	10,000	8	80,000
Register of Fully Accredited Herds arranged by Breeds as recorded to March 31, 1929.....	200	36	7,200
Fox Ranching in Canada (Bulletin No. 12—New Series).....	15,000	48	720,000
The Origin and Quality of Commercial Live Stock marketed in Canada in 1928 (Report No. 9).....	2,000	48	96,000
An Argument in the Kitchen—A Playlet for Children in One Act..	5,000	16	80,000
Household Insects and their Control (Bulletin No. 112—New Series).....	25,000	84	2,100,000
The Canadian Record of Performance for Pure-Bred Poultry, 1927-1928 (Report No. 9).....	7,500	112	840,000
Regulations governing the Inspection of Condensed, Evaporated and Dried Milk—Acts, Orders and Regulations (No. 27).....	1,000	8	8,000
Why and How to Use Milk (Pamphlet No. 16—New Series).....	25,000	32	800,000
The Root Vegetables Act and Regulations—Acts, Orders and Regulations (No. 28).....	30,300	32	969,600
Regulations made under the provisions of the Live Stock and Live Stock Products Acts, respecting the Grading and Marketing of Eggs.....	50,000	16	800,000
Anthrax (Bulletin No. 120—New Series).....	5,000	16	80,000
Constitution and By-Laws of the Maritime Co-operative Egg and Poultry Exchange, March 5, 1927.....	3,000	12	36,000
Hand-book on the Bacon Hog and Hog Grading (Pamphlet No. 40—New Series).....	20,000	24	480,000
Rabbits (Bulletin No. 28—New Series).....	10,000	32	320,000
The Grading and Marking of Dressed Poultry.....	10,000	8	80,000
Canadian Grown Apples—Delight in every bite.....	39,150	24	939,600
Methods of Protection from Mosquitoes, Black-Flies and Similar Pests in the Forest (Pamphlet No. 55—New Series).....	2,000	16	32,000
Egg Grading Report—The Individual Graded Return (Pamphlet No. 70).....	4,000	12	48,000
Dressing and Cutting Lamb Carcasses (Pamphlet No. 8—New Series).....	10,000	32	320,000
Hog Marking (Pamphlet No. 88—New Series).....	10,000	8	80,000
Advice to the Beginner in the Selection of Breeding Stock.....	10,000	16	160,000
Microbiological Studies of Honey (Bulletin No. 116—New Series).....	5,000	48	240,000
Fruit and Vegetables—Canning, Drying, Storing.....	39,920	32	1,277,440
Experimental Station, Charlottetown, P.E.I.—Report of the Superintendent, 1928.....	12,800	56	716,800
Regulations under the Destructive Insect and Pest Act.....	5,000	8	40,000
Report of the Veterinary Director General, 1928-29.....	7,000	56	392,000
Register of Fully Accredited Herds arranged by Breeds as recorded to September 30, 1929.....	250	40	10,000
Satin Moth in British Columbia (Pamphlet No. 50—New Series).....	1,500	16	24,000
Poultry Culling in New Brunswick.....	5,000	20	100,000
Carried forward.....	412,220	5,364	15,036,090

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	412,220	5,364	15,036,090
<i>Agriculture—Continued</i>			
ENGLISH—Concluded			
The Fruit Act and Regulations—Acts, Orders and Regulations (No. 7).....	15,000	52	780,000
The Testing of Milk, Cream and Dairy By-Products by Means of the Babcock Test (Bulletin No. 14—New Series).....	5,000	48	240,000
Seasonable Hints.....	151,000	16	2,416,000
The Feeding Stuffs Act with Amendments and Regulations—Acts, Orders and Regulations (No. 10).....	4,000	26	104,000
Boys' Cattle Breeding Club Policy, 1929.....	5,000	32	160,000
Use of Irrigation Water on Farm Crops (Bulletin No. 125—New Series).....	7,850	52	408,200
Grading up the Dairy Cow by the Use of Pure-Bred Sires (Bulletin No. 126—New Series).....	35,000	36	1,260,000
A Colour Defect of Cheddar Cheese (Bulletin No. 128—New Series).....	3,000	24	72,000
Bovine Tuberculosis.....	2,500	8	20,000
The Pale Western Cutworm (Pamphlet No. 71—New Series).....	1,500	8	12,000
Buttermaking on the Farm (Bulletin No. 57—New Series).....	2,000	12	24,000
List of Publications, 1930.....	30,000	16	480,000
The Strawberry and its Cultivation in Canada (Bulletin No. 80—New Series).....	15,000	56	840,000
Package Bees and How to Install Them (Pamphlet No. 107—New Series).....	25,000	8	200,000
The Canadian Record of Performance for Pure-Bred Dairy Cattle—Regulations, Standards and Records of Cows Qualified for Registration (Report No. 21).....	5,500	144	792,000
The Composition of Canadian Cheddar and Process Cheese (Bulletin No. 79—New Series).....	3,000	20	60,000
Calf Feeding Club Policy, Quebec.....	1,400	8	11,200
Calf Feeding Club Policy, Maritime Provinces.....	4,000	8	32,000
Egg Grading Report (Pamphlet No. 70).....	10,000	12	120,000
Canadian Market Bulletin.....	200	16	3,200
Canadian Fruit and Vegetable Market Bulletin.....	99,000	188	*723,200
Seed, Feed and Fertilizer Markets.....	28,000	32	*224,000
Bulletin of the Canadian Tuberculosis Association.....	158,000	48	*1,360,000
BILINGUAL			
Fertilizer Analysis, 1928-29—Analyse d'engrais chimiques, 1928-29	3,000	136	408,000
FRENCH			
Système de notes pour l'élevage des volailles (bulletin N° 103—nouvelle série).....	2,000	24	48,000
Station Expérimentale, Ste-Anne de la Pocatière, P.Q.—Rapport du régisseur, 1927.....	4,000	80	320,000
La rouille de la tige dans l'Ouest du Canada—Etudes sur les maladies des céréales (bulletin N° 106—nouvelle série).....	1,000	36	36,000
Station expérimentale, Lacombe, Alta.—Rapport du régisseur, 1927	1,000	84	84,000
Station expérimentale, Kapuskasing, Ont.—Rapport du régisseur, 1927	2,000	80	160,000
Pois—Descriptions-types de légumes (bulletin N° 107—nouvelle série).....	3,000	52	156,000
Sous-station expérimentale, Beaverlodge, Alta.—Rapport du régisseur, 1927.....	1,000	70	70,000
L'élevage du renard au Canada (bulletin N° 12—nouvelle série).....	5,000	48	240,000
Loi concernant l'industrie laitière et règlements—Lois, arrêtés et règlements (N° 26).....	3,000	48	144,000
La viande d'agneaux—Choix des morceaux et façon de les apprêter (feuillelet No 9—nouvelle série).....	5,000	12	60,000
La fièvre charbonneuse (bulletin N° 120—nouvelle série).....	3,000	16	48,000
Le traitement de la crème pour la fabrication du beurre (feuillelet N° 37—nouvelle série).....	5,000	12	60,000
La neutralisation de la crème pour la fabrication du beurre (feuillelet N° 52—nouvelle série).....	2,000	8	16,000
Carried forward.....	1,063,170	6,940	27,227,890

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	1,063,170	6,940	27,227,890
Agriculture—Concluded			
FRENCH—Concluded			
Règlements gouvernant l'inspection des conserves de fruits et de légumes.....	1,000	64	64,000
La sélection des sujets reproducteurs—Conseils aux débutants....	5,000	16	80,000
La fabrication de la crème à la glace (bulletin N° 102—nouvelle série).....	2,500	32	80,000
Le porc à bacon et le classement des porcs—Manuel de l'éleveur (feuilleton N° 40—nouvelle série).....	5,000	24	120,000
Pommes cultivées au Canada—Chaque bouchée est un régal.....	9,500	24	228,000
L'essai du lait, de la crème et des sous-produits du lait au moyen du procédé Babcock (bulletin N° 14—nouvelle série).....	2,500	48	120,000
La loi des plantes-racines potagères et règlements—Lois, arrêtés et règlements (N° 28).....	3,000	32	96,000
Le contrôle de la ponte au Canada pour les volailles de race pure, 1927-28 (rapport N° 9).....	1,000	106	106,000
Rapport de l'horticulteur du Dominion, 1927.....	3,000	52	156,000
Conserves de fruits et de légumes faites à la maison (bulletin N° 77—nouvelle série).....	10,000	64	640,000
La loi des aliments du bétail avec amendements et règlements—Lois, arrêtés et règlements (N° 10).....	2,000	28	56,000
Rapport du botaniste du Dominion, 1927.....	1,000	260	260,000
Liste des publications, 1930.....	10,000	16	160,000
Cercles de jeunes éleveurs de bétail, 1929.....	5,000	32	160,000
Rapport du Directeur général vétérinaire, 1928-29.....	3,000	58	174,000
La sélection des volailles au Nouveau-Brunswick.....	5,000	20	100,000
La revue des marchés, des semences, des produits alimentaires pour les animaux et les engrais chimiques.....	28,000	32	*224,000
Bulletin de l'Association Canadienne Antituberculeuse.....	20,000	32	*160,000
Archives—			
ENGLISH			
The Kelsey Papers.....	1,522	210	319,620
The Canadian Historical Association—Report of the Annual Meeting held at Ottawa, May 22-23, 1929.....	800	144	115,200
Auditor General—			
BILINGUAL			
Auditor General's Report—Rapport de l'Auditeur général, 1928-29 (published in separate parts).....	40	1,262	50,480
Canada Gazette—			
ENGLISH			
Index to the Canada Gazette, 1928-29.....	2,250	104	234,000
Chief Electoral Officer—			
ENGLISH			
Instructions of the Chief Electoral Officer for a Vote to be taken on a Question submitted under the Canada Temperance Act, in a County or City with which are included the Dominion Elections Act, March 15, 1930.....	200	36	7,200
Election Instructions (Complete) with a Discussion of the Rights and Obligations of Candidates and the Dominion Elections Act as amended by 1929, c. 40, March 1, 1930 (Book A).....	35,000	272	9,520,000
FRENCH			
Instructions électorales (complètes) avec commentaires sur les droits et obligations des candidats et la loi des élections fédérales (cahier A), 16 juillet 1928.....	500	276	138,000
Carried forward.....	1,219,982	10,184	40,596,390

TABLE NO. 8—Statement of Pamphlet and Miscellaneous Book-work,
1928-29—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	1,219,982	10,184	40,596,390
<i>Chief Electoral Officer—Concluded</i>			
<i>FRENCH—Concluded</i>			
Instructions du Directeur général des élections relatives à l'expression des suffrages sur une question soumise en vertu de la Loi de tempérance du Canada dans un comté ou une cité, instructions auxquelles sont annexée la Loi des élections fédérales, 15 mars 1930.....	200	36	7,200
Instructions électorales (complètes) avec commentaires sur les droits et obligations des candidats et loi des élections fédérales telle que modifiée par 1929, c. 40, 1er mars 1930 (cahier A).....	10,000	292	2,920,000
<i>Civil Service Commission—</i>			
<i>ENGLISH</i>			
Information respecting Examinations for Junior Trade Commissioners in the Commercial Intelligence Service.....	1,500	12	18,000
Civil Service Regulations.....	1,000	32	32,000
How Appointments are made in the Public Service of Canada.....	3,000	8	24,000
Examinations for the Customs Service.....	3,000	8	24,000
Examinations for Clerks, Stenographers and Typists.....	5,000	8	40,000
Examinations for Junior Trade Commissioners in the Commercial Intelligence Service.....	2,500	12	30,000
<i>FRENCH</i>			
Renseignements concernant les examens pour commissaires junior du commerce au service des renseignements commerciaux.....	1,500	12	18,000
Spécimens de questionnaires d'examens.....	200	48	9,600
Comment se font les nominations au Service Civil du Canada.....	3,000	8	24,000
Règlements du Service Civil, Canada.....	400	32	12,800
<i>Experimental Farms—</i>			
<i>ENGLISH</i>			
Report of the Dominion Chemist, 1927-28.....	6,000	96	576,000
Report of the Dominion Animal Husbandman, 1927-28.....	10,500	52	546,000
Report of the Dominion Field Husbandman, 1928.....	8,500	48	408,000
Preparing Poultry Produce for Market (Bulletin No. 20).....	15,000	32	480,000
Report of the Chief Supervisor on the Illustration Station in British Columbia, Alberta, Saskatchewan and Manitoba, 1928.....	4,500	84	378,000
Seven Years' Experience with the Combined Reaper-Thresher, 1922-28 (Bulletin No. 118—New Series).....	15,000	32	480,000
Report of the Sixth, Seventh and Eighth Annual Canadian National Egg-Laying Contests (Bulletin No. 108—New Series).....	20,000	144	2,880,000
Studies in Forest Pathology (Bulletin No. 111—New Series).....	5,000	70	350,000
Experimental Station, Cap Rouge, P.Q.—Report of the Superintendent, 1927.....	4,000	88	352,000
Experimental Station, Swift Current, Sask.—Report of the Superintendent, 1928.....	6,000	52	312,000
The Yellow Disease of Hyacinths (Pamphlet No. 104—New Series).....	5,000	8	40,000
Experimental Station, Morden, Man.—Report of the Superintendent, 1928.....	4,500	80	360,000
The Raspberry and its Cultivation in Canada with a Section on Insects affecting the Raspberry (Bulletin No. 114).....	30,000	28	840,000
The Black Leg Disease of Potatoes—Studies in Potatoes Diseases (Pamphlet No. 105—New Series).....	10,000	12	120,000
Cost of Producing Farm Crops in Eastern Canada (Bulletin No. 115—New Series).....	15,000	48	720,000
Experimental Station, Lennoxville, P.Q.—Report of the Superintendent, 1928.....	5,600	68	380,800
Experimental Station, Rosthern, Sask.—Report of the Superintendent, 1928.....	5,600	48	268,800
Report of Economic Fibre Production, 1927.....	6,500	16	104,000
Carried forward.....	1,427,982	11,698	53,351,590

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	1,427,982	11,698	53,351,590
<i>Experimental Farms—Continued</i>			
<i>ENGLISH—Concluded</i>			
Experimental Farm, Agassiz, B.C.—Report of the Superintendent, 1928.....	7,000	40	280,000
Experimental Station, Farnham, P.Q.—Report of the Superintendent, 1928.....	3,700	20	74,000
Report of the Dominion Apiarist, 1928.....	8,200	24	196,800
Smut Diseases of Cultivated Plants—Their Cause and Control (Bulletin No. 81—New Series).....	10,000	80	800,000
Experimental Station, Sidney, B.C.—Report of the Superintendent, 1928.....	5,500	48	264,000
Canadian National Egg-Laying Contest, 1929-30.....	1,500	8	12,000
Experimental Farm, Indian Head, Sask.—Report of the Superintendent, 1928.....	12,500	52	650,000
Experimental Station, Scott, Sask.—Report of the Superintendent, 1928.....	21,700	64	1,388,800
Bees and How to Keep them (Bulletin No. 33)—New Series.....	20,000	64	1,280,000
Herbaceous Perennials with Lists of Varieties for Special Purposes and Districts (Bulletin No. 113—New Series).....	30,000	72	2,160,000
Experimental Substations: Fort Vermilion, Alta., Fort Smith, N.W.T., Salmon Arm, B.C., Fort Resolution, N.W.T., Betsiamites, P.Q., Fort Providence, N.W.T., Fort Good Hope, N.W.T.—Report of the Experimentalists in Charge, 1927 and 1928.	4,500	40	180,000
Experimental Farm, Nappan, N.S.—Report of the Superintendent, 1928.....	5,200	76	395,200
Late Blight and Rot of Potatoes (Bulletin No. 119—New Series).....	10,000	20	200,000
Report of the Dominion Agricultural Bacteriologist, 1927 and 1928.....	4,500	36	162,000
Corn Growing in Manitoba (Bulletin No. 121—New Series).....	10,000	16	160,000
How to Caponize (Pamphlet No. 12—New Series).....	10,000	8	80,000
Preserving Fruits and Vegetables in the Home (Bulletin No. 77—New Series).....	30,000	56	1,680,000
Testing the Producer's Milk for Quality (Bulletin No. 123—New Series).....	15,000	16	240,000
Experimental Station, Fredericton, N.B.—Report of the Superintendent, 1928.....	8,800	64	563,200
Close-Grazing (Bulletin No. 122—New Series).....	8,000	8	64,000
Experimental Station, Cap Rouge, P.Q.—Report of the Superintendent, 1928.....	4,200	52	218,400
Report of the Division of Forage Plants, 1928.....	5,500	32	176,000
Experimental Station, Ste. Anne de la Pocatière, P.Q.—Report of the Superintendent, 1928.....	3,200	72	230,400
Experimental Station, La Ferme, P.Q.—Report of the Superintendent, 1928.....	3,300	56	184,800
Experimental Station, Kapuskasing, Ont.—Report of the Superintendent, 1928.....	4,700	64	300,800
Experimental Station, Summerland, B.C.—Report of the Superintendent, 1928.....	6,500	64	416,000
Experimental Station, Lethbridge, Alta.—Report of the Superintendent, 1928.....	4,600	68	312,800
Experimental Station, Kentville, N.S.—Report of the Superintendent, 1928.....	6,200	64	396,800
Report of the Dominion Poultry Husbandman, 1928.....	16,000	84	1,344,000
Experimental Station, Lacombe, Alta.—Report of the Superintendent, 1928.....	10,500	80	840,000
Report of the Dominion Cerealists, 1928.....	6,500	48	312,000
Bacteriological Investigations on Milking Machines (Bulletin No. 127—New Series).....	20,000	40	800,000
Seasonable Hints.....	1,539,050	160	*24,624,800
<i>FRENCH</i>			
Station expérimentale, Kentville, N.-E.—Rapport du régisseur, 1927.	1,000	64	64,000
Station expérimentale, La Ferme, P.Q.—Rapport du régisseur, 1926 et 1927.....	2,400	72	172,800
Carried forward.....	3,287,732	13,530	94,575,190

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	3, 287, 732	13, 530	94, 575, 190
<i>Experimental Farms—Concluded</i>			
<i>FRENCH—Concluded</i>			
La culture des tomates (feuilleton n° 100—nouvelle série).....	5, 000	8	40, 000
La maladie jaune de la jacinthe (feuilleton n° 104—nouvelle série)....	500	8	4, 000
Maladie de la jambe noire—Études sur les maladies des pommes de terre (bulletin n° 105—nouvelle série).....	3, 000	16	48, 000
Le lapin (bulletin n° 28—nouvelle série).....	5, 000	32	160, 000
Service de la production de la filasse industrielle—Rapport du chef du service, 1927.....	2, 000	16	32, 000
La conversion des fourrages secs en un aliment succulent—Une étude du procédé "Sugar Jack" (bulletin n° 96—nouvelle série).....	2, 000	40	80, 000
Rapport du céréaliste du Dominion, 1927.....	2, 400	40	96, 000
La maladie de la pomme de terre (bulletin n° 119—nouvelle série)...	2, 500	16	40, 000
Station expérimentale, Cap Rouge, P.Q.—Rapport du régisseur, 1927.....	18, 500	96	1, 776, 000
Station expérimentale, Farnham, P.Q.—Rapport du régisseur, 1928	3, 600	20	72, 000
Station d'élevage de renards, Summerside, I.P.-E.—Rapport du régisseur, 1926 et 1927.....	4, 000	64	256, 000
Concours de ponte nationaux canadiens—Rapport pour les sixième, septième et huitième années (bulletin n° 108—nouvelle série)...	3, 000	144	432, 000
La préparation des produits de la basse-cour pour la vente (bulletin n° 20).....	5, 000	32	160, 000
Comment chaponner (feuilleton n° 12—nouvelle série).....	5, 000	8	40, 000
Ferme expérimentale, Brandon, Man.—Rapport du régisseur, 1928...	800	64	51, 200
Station expérimentale, Charlottetown, I.P.-E.—Rapport du régis- seur, 1928.....	900	64	57, 600
Fermes expérimentales fédérales—Rapport du service des plantes fourragères, 1927.....	2, 500	46	115, 000
Rapport de l'apiculteur du Dominion, 1928.....	3, 000	32	96, 000
Station expérimentale, Ste-Anne de la Pocatière, P.Q.—Rapport du régisseur, 1928.....	5, 200	80	416, 000
Maladies charbonneuses des plantes cultivées—Causes et remèdes (bulletin n° 81—nouvelle série).....	3, 000	80	240, 000
Rapport du chimiste du Dominion, 1927-28.....	2, 000	96	192, 000
Le framboisier et sa culture au Canada (bulletin n° 114).....	5, 000	32	160, 000
Station expérimentale, Lennoxville, P.Q.—Rapport du régisseur, 1928.....	3, 000	72	216, 000
La culture du blé d'Inde au Manitoba (bulletin n° 121—nouvelle série).....	2, 000	16	32, 000
L'essai de la qualité du lait au sortir de la ferme (bulletin n° 123— nouvelle série).....	5, 000	20	100, 000
Service de l'exploitation animale—Rapport de l'éleveur du Domi- nion, 1927-28.....	2, 600	56	145, 600
La culture des tomates (feuilleton n° 100—nouvelle série).....	10, 000	8	80, 000
Rapport du service des plantes fourragères, 1928.....	2, 200	32	70, 400
Station expérimentale, Morden, Man.—Rapport du régisseur, 1928	1, 000	80	80, 000
Fleurs vivaces de pleine terre et liste de variétés pour certains dis- tricts et pour certaines fins (bulletin n° 113—nouvelle série)...	8, 000	80	640, 000
Sept années d'expérience avec la moissonneuse-batteuse combinée (Combine) 1922-1928, sur la station expérimentale fédérale, Swift Current, Sask. (bulletin n° 18—nouvelle série).....	4, 000	32	128, 000
Station expérimentale, La Ferme, P.Q.—Rapport du régisseur, 1928.....	2, 200	56	123, 200
Conseils pour la saison.....	235, 000	80	*3, 760, 000
<i>External Affairs—</i>			
<i>ENGLISH</i>			
Report of the Conference on the Operation of Dominion Legislation and Merchant Shipping Legislation, 1929.....	1, 700	56	95, 200
Report of the Canadian Delegates to the Tenth Assembly of the League of Nations, Geneva, September 2 to 25, 1929.....	200	44	8, 800
Exchange of Notes with the Spanish Government (Treaty Series, 1928, No. 7).....	250	48	12, 000
Carried forward.....	3, 648, 782	15, 244	104, 630, 190

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1928-29—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	3,648,782	15,244	104,630,190
<i>External Affairs—Continued</i>			
ENGLISH—Concluded			
International Convention relating to Dangerous Drugs (Treaty Series, 1928, No. 4).....	200	24	4,800
Notification extending to Canada, the Treaty between His Majesty and Finland for the Extradition of Criminals (Treaty Series, 1928, No. 13).....	250	16	4,000
Convention of Commerce between Canada and Czechoslovakia (Treaty Series, 1928, No. 6).....	200	8	1,600
International Slavery Convention (Treaty Series, No. 5, 1928).....	200	12	2,400
Sockeye Salmon Fisheries.....	300	8	2,400
International Sanitary Convention (Treaty Series, 1928, No. 2)....	200	112	22,400
Convention between His Majesty and the President of the United Mexican States (Treaty Series, 1928, No. 1).....	200	12	2,400
International Convention for the Protection of Industrial Property (Treaty Series, 1928, No. 3).....	400	32	*12,800
Notification extending to Canada, the Treaty between His Majesty and Czechoslovakia, for the extradition of Criminals (Treaty Series, 1928, No. 8).....	250	16	4,000
Notification effected by an Exchange of Notes, extending to Canada, the Convention between His Majesty and the Czechoslovak Republic relative to Legal Proceedings in Civil and Commercial Matters (Treaty Series, 1928, No. 17).....	250	16	4,000
Exchange of Notes—The Agreement with the United States of America, etc. (Treaty Series, 1928, No. 9).....	250	8	2,000
Notification extending to Canada—The Convention between His Majesty and Estonia (Treaty Series, 1928, No. 10).....	350	8	2,800
Notification extending to Canada—The Treaty between His Majesty and Lithuania (Treaty Series, 1928, No. 11).....	250	12	3,000
Notification extending to Canada—The Treaty between His Majesty and the Latvian Republic for the Extradition of Fugitive Criminals (Treaty Series, 1928, No. 12).....	250	8	2,000
Notification extending to Canada—The Treaty between His Majesty and Albania for the Extradition of Criminals (Treaty Series, 1928, No. 14).....	250	16	4,000
Notification effected by an Exchange of Notes extending to Canada, the Convention between His Majesty and France respecting Legal Proceedings in Civil and Commercial Matters (Treaty Series, 1928, No. 15).....	250	16	4,000
BILINGUAL			
International Conference on Safety of Life at Sea, 1929—Conférence internationale pour la sauvegarde de la vie humaine en mer, 1929.....	300	100	30,000
Passport—Passeport.....	27,000	32	864,000
FRENCH			
Rapport de la conférence sur l'application des lois des Dominions et de la législation relative à la marine marchande, 1929.....	175	64	11,200
Echange de notes avec le gouvernement espagnol (recueil des traités, 1928, n° 7).....	100	24	2,400
Echange de notes, comportant un accord avec les Etats-Unis d'Amérique relatif à l'exemption réciproque de l'impôt sur le revenu en ce qui concerne les bénéfices provenant des opérations d'armement maritime (recueil des traités, 1928, n° 9).....	100	8	800
Pêche du saumon Sockeye.....	150	8	1,200
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la République Lettone pour l'extradition des criminels (recueil des traités, 1928, n° 12).....	100	12	1,200
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la Finlande pour l'extradition des criminels (recueil des traités, 1928, n° 13).....	100	12	1,200
Carried forward.....	3,680,857	15,828	105,620,790

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	3,680,857	15,828	105,620,790
<i>External Affairs—Concluded</i>			
FRENCH— <i>Concluded</i>			
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et l'Albanie pour l'extradition des criminels (recueil des traités, 1928, n° 14).....	125	12	1,500
Notification effectuée par un échange de notes concernant l'extension au Canada de la Convention entre Sa Majesté et la République Française au sujet des actes de procédure en matières civile et commerciale (recueil des traités, 1928, n° 15).....	100	12	1,200
Notification effectuée par un échange de notes concernant l'extension au Canada de la convention entre Sa Majesté et la république Tchecoslovaque au sujet des actes de procédures en matières civile et commerciale (recueil des traités, 1928, n° 17).....	100	12	1,200
Notification concernant l'extension au Canada des dispositions de la convention entre Sa Majesté et l'Estonie (recueil des traités, 1928, n° 10).....	100	12	1,200
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la Lithuanie (recueil des traités, 1928, n° 11).....	100	12	1,200
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la Tchecoslovaquie pour l'extradition des criminels (recueil des traités, 1928, n° 8).....	100	10	1,000
Convention internationale relative à l'esclavage (recueil des traités, 1928, n° 5).....	100	12	1,200
Convention de commerce entre le Canada et la Tchecoslovaquie (recueil des traités, 1928, n° 6).....	100	8	800
Convention internationale concernant les drogues nuisibles (recueil des traités, 1928, n° 4).....	100	24	2,400
Convention sanitaire internationale (recueil des traités, 1928, n° 2).....	200	112	22,400
Convention entre Sa Majesté et le Président des Etats-Unis du Mexique (recueil des traités, 1928, n° 1).....	205	8	1,640
Convention internationale pour la protection de la propriété industrielle (recueil des traités, 1928, n° 3).....	100	20	2,000
<i>Finance—</i>			
ENGLISH			
Budget Speech, March 1, 1929.....	4,000	32	128,000
Estimates of Canada, Supplementary, 1929-30.....	300	18	5,400
Estimates of Canada, 1930-31.....	500	112	56,000
List of Lost, Stolen and Destroyed Dominion of Canada Bonds including Bonds issued at New York, etc.....	5,000	32	160,000
The Issue and Redemption of Currency, June 1, 1929.....	5,000	8	40,000
Report of the Royal Commission on Technical and Professional Services, February, 1930.....	1,000	64	64,000
BILINGUAL			
Civil Service Insurance Act—Loi de l'assurance du Service civil..	10,000	24	240,000
FRENCH			
Exposé du budget, 1er mars 1929.....	3,000	32	96,000
<i>Governor's General's Secretary—</i>			
ENGLISH			
Dinner List and Table Plan, January 27, 1930.....	55	8	440
Carried forward.....	3,711,142	16,412	106,448,370

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	3,711,142	16,412	106,448,370
<i>Health—</i>			
ENGLISH			
An Act respecting Food and Drugs.....	5,000	16	80,000
An Act respecting Proprietary or Patent Medicines with Instruc- tions for Registering and Licensing Medicines.....	3,000	16	48,000
An Act respecting Proprietary or Patent Medicines.....	1,000	8	8,000
Opium and Narcotic Drug Act.....	25,000	12	300,000
Manual for Guidance of Physicians (Publication No. 28).....	1,000	32	32,000
An Act to amend and consolidate the Opium and Narcotic Drug Act.....	3,500	16	56,000
An Examination of Chinchona and its Commercial Preparations..	12,000	16	192,000
Rickets: Prevention and Cure (National Health, Publication No. 43).....	20,000	20	400,000
The Canadian Mother's Book (National Health, Publication No. 2).....	20,000	164	3,280,000
Information for Parents—Teaching of Sex Hygiene to Children (National Health, Publication No. 26).....	5,000	8	40,000
Information for Young Women about Sex Hygiene (National Health, Publication No. 25).....	5,000	8	40,000
Information for Men—Syphilis and Gonorrhœa (National Health, Publication No. 24).....	5,000	8	40,000
A Directory of the Hospitals of Canada with Maps, 1929.....	15,000	48	720,000
Report of the Narcotic Division.....	10,000	16	160,000
The Little Blue Books (Household Series)—			
Canadians Need Milk—Publication No. 12.....	5,000	12	60,000
How we Cook in Canada—Publication No. 13.....	5,000	52	260,000
How to Manage Housework in Canada—Publication No. 14..	5,000	48	240,000
How to Take Care of Household Waste—Publication No. 15..	12,500	8	*100,000
Household Cost Accounting in Canada—Publication No. 16....	5,000	30	150,000
The Little Blue Books (Mother's Series)—			
How to Take Care of the Baby—Publication No. 3.....	5,000	24	120,000
How to Take Care of the Mother—Publication No. 4.....	10,000	24	240,000
How to Take Care of the Children—Publication No. 5.....	12,500	40	500,000
How to Take Care of the Father and the Family—Publication No. 6.....	12,500	32	400,000
The Little Blue Books (Home Series)—			
Beginning a Home in Canada—Publication No. 7.....	12,500	20	250,000
How to Build the Canadian House—Publication No. 8.....	7,500	16	120,000
How to Make our Canadian Home—Publication No. 9.....	7,500	48	360,000
How to Make Outpost Homes in Canada—Publication No. 10..	5,000	20	100,000
How to Avoid Accidents and Give First Aid—Publication No. 11.....	10,000	24	240,000
The Little Blue Books (National Series)—			
Mother—A Little Book for Women—Publication No. 38.....	5,000	36	180,000
Mother—A Little Book for Men—Publication No. 39.....	5,000	40	200,000
BILINGUAL			
Abstracts of Current Public Health Literature—Extraits de publi- cations courantes sur la santé publique—			
Abstract (March, 1929).....	10,000	80	800,000
Abstract (April, 1929).....	10,500	64	672,000
Abstract (May, 1929).....	10,700	64	684,800
Abstract (June, 1929).....	10,700	56	599,200
Abstracts (July, 1929).....	10,700	48	513,600
Abstract (September, 1929).....	10,700	56	599,200
Abstract (October, 1929).....	10,700	52	556,400
Abstract (November, 1929).....	10,700	56	599,200
Abstract (December, 1929).....	10,500	56	588,000
Abstract (January, 1930).....	10,500	48	504,000
Abstract (February, 1930).....	10,500	52	546,000
Abstract (March, 1930).....	10,500	48	504,000
Carried forward.....	4,093,342	17,954	122,530,770

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	4,093,342	17,954	122,530,770
<i>Health—Concluded</i>			
FRENCH			
Règlements établis par arrêt ministériel, le 2 juillet 1929, sous l'empire des dispositions de la Loi de l'opium et des drogues narcotiques.....	5,500	8	44,000
Loi de l'Opium et des Drogues Narcotiques.....	5,000	12	60,000
Loi modifiant et codifiant la Loi de l'opium et des drogues narcotiques.....	500	12	6,000
Préparez-vous à prévenir la paralysie infantile (santé nationale, publication n° 51).....	15,000	16	240,000
Ce que chacun devrait savoir concernant la tuberculose (santé nationale, publication n° 31).....	50,000	20	1,000,000
Renseignements pour les hommes—Syphilis et blennorrhagie (santé nationale, publication n° 24).....	5,000	8	40,000
Le rachitisme: Prévention et guérison (santé nationale, publication n° 43).....	3,000	24	72,000
Les petits livres bleus (collection domestique)—			
Canadiens, buvez du lait—Publication n° 12.....	5,000	16	80,000
La cuisine canadienne—Publication n° 13.....	5,000	72	360,000
Comment tenir maison au Canada—Publication n° 14.....	5,000	68	340,000
Les ordures ménagères—Publication n° 15.....	5,000	12	60,000
Comptabilité domestique au Canada—Publication n° 16.....	5,000	20	100,000
Les petits livres bleus (collection maternelle)—			
Le livre des mères canadiennes—Publication n° 2.....	40,000	216	8,640,000
Comment prendre soin de bébé—Publication n° 3.....	5,000	32	160,000
Comment prendre soin de maman—Publication n° 4.....	10,000	32	320,000
Comment élever les enfants—Publications n° 5.....	7,500	56	420,000
Comment prendre soin de papa et de la famille—Publication n° 6.....	7,500	40	300,000
Les petits livres bleus (collection du foyer)—			
La première étape du Canada—Publication n° 7.....	5,000	24	120,000
Comment construire une maison canadienne—Publication n° 8.....	5,000	20	100,000
Comment fonder un foyer canadien—Publication n° 9.....	5,000	56	280,000
Les foyers-vedettes au Canada—Publication n° 10.....	5,000	24	120,000
Accidents et premiers secours—Publication n° 11.....	5,000	32	160,000
Les petits livres bleus (série nationale)—			
Maman—Une brochurette pour les femmes—Publication n° 38.....	5,000	48	240,000
Maman—Une brochurette pour les hommes—Publication n° 39.....	5,000	48	240,000
<i>House of Commons—</i>			
ENGLISH			
Moody and Sanky's Hymnal by Tory and Grit, May 4, 1929.....	320	20	6,400
"The Naked Truth".....	770	20	15,400
Lists of Acts, Session of 1929.....	100	8	800
Index—House of Commons Debates (Unrevised Edition), Session of 1929.....	3,959	132	522,588
Index to the Sixty-Sixth Volume of the Journals of the House of Commons, Session of 1929.....	29	80	2,320
Annual Report of the Board Commissioners for Canada, for the Crop Year ended August 31, 1928.....	200	44	8,800
Estimates of Canada, Supplementary, 1929-30.....	1,000	18	18,000
Report of the Superintendent of Insurance of the Dominion of Canada, 1928 (Vol. I).....	250	1,548	387,000
Report of the Superintendent of Insurance of the Dominion of Canada, 1928 (Vol. II).....	250	1,252	313,000
Railway Transportation—Members of the House of Commons, 1930.....	250	44	11,000
List of Reports and Returns to be made to the House of Commons by Public Officers and Private Corporations, Session of 1930.....	450	8	3,600
Estimates of Canada, 1930-31.....	1,500	112	168,000
Report of the Canadian Delegates to the Tenth Assembly of the League of Nations, Geneva, September 2 to 25, 1929.....	350	44	15,400
Carried forward.....	4,316,770	22,200	137,505,078

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	4,316,770	22,200	137,505,078
<i>Houses of Commons—Concluded</i>			
BILINGUAL			
List of Shipping, 1928—Liste des navires, 1928.....	100	276	27,600
Abstract of Statements of Insurance Companies in Canada, 1928— Relevé des états des compagnies d'assurance au Canada, 1928..	50	498	24,900
Canal Statistics, 1928—Statistique des canaux, 1928.....	100	56	5,600
International Conference on Safety of Life at Sea, 1929—Conférence internationale pour la sauvegarde de la vie humaine en mer, 1929	400	100	40,000
List of Members of the House of Commons with their Constitu- encies and Post Office Addresses—Liste des membres de la Cham- bre des Communes avec les districts électoraux et adresses pos- tales (Corrected to February 17, 1930).....	1,000	64	64,000
FRENCH			
Index du Soixante et Sixième Volume—Journaux de la Chambre des Communes, 1929.....	8	62	496
Budget du Canada, supplémentaire, 1929-30.....	250	18	4,500
Pensions et problèmes des anciens combattants—Rapports, délibé- rations et témoignages du Comité spécial des pensions, etc., 17 février au 30 avril 1928.....	327	692	226,284
Budget du Canada, 1930-31.....	100	12	1,200
Rapport de la conférence sur l'application des lois des Dominions et de la législation relative à la marine marchande, 1929.....	125	64	8,000
<i>Immigration and Colonization—</i>			
ENGLISH			
Manual of Citizenship.....	50,000	40	2,000,000
Land Settlement, Canada—Where to Go for Advice.....	20,000	26	520,000
Canada—The Land we Come from.....	15,000	32	480,000
The Immigration Act and Regulations.....	10,000	52	520,000
Informations for Settlers, Canada.....	15,000	8	120,000
Farm Opportunities in Canada.....	210,000	32	6,720,000
British Family Settlement in New Brunswick, Canada.....	20,000	36	720,000
Winning Through—Stories of Life on Canadian Farms told by New British Settlers.....	10,300	48	494,400
Boy Settlement in Canada.....	30,000	32	960,000
Illustrated Canada—Standard Lecture.....	250	52	13,000
<i>Indian Affairs—</i>			
ENGLISH			
Census of Indians in Canada, 1929.....	200	32	6,400
The Indian Act, 1927.....	700	66	46,200
Amendments to the Regulations for the Disposal of Oil and Gas Rights on Indian Reserves.....	500	8	4,000
Standard Medical and Surgical Supplies (Drug List No. 3).....	1,000	16	16,000
Regulations for the Disposal of Minerals other than Coal, Petroleum and Natural Gas, on Indian Reserves.....	3,000	16	48,000
BILINGUAL			
Auditor General's Report, 1928-29 (Part I)—Rapport de l'auditeur général, 1928-29 (partie I).....	300	68	20,400
<i>Insurance—</i>			
ENGLISH			
Report of the Superintendent of Insurance of the Dominion of Canada, 1927 (Vol. II.).....	5,326	1,090	5,805,340
The Insurance Act and the Winding-Up Act, etc.....	1,010	200	202,000
Statistical Report of Fire Losses in Canada, 1928.....	500	8	4,000
Carried forward.....	4,712,316	25,904	156,607,398

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	4,712,316	25,904	156,607,398
<i>Insurance—Concluded</i>			
<i>ENGLISH—Concluded</i>			
Annual Conference of the Association of Canadian Fire Marshals, etc.....	300	8	2,400
List of Insurance Companies Licensed to do Business in Canada under the Insurance Act.....	1,450	40	*29,000
Abstract of Statements of Loan and Trust Companies in Canada, 1928.....	500	24	12,000
Statistical Report of Fire Losses in Canada, 1928.....	400	8	3,200
List of Directors and Shareholders of Canadian Insurance Com- panies, as at December 31, 1928, or Subsequent date.....	500	282	141,000
List of Insurance Companies Licensed to do Business in Canada under The Insurance Act (Extract from <i>The Canada Gazette</i> , October 5, 1929).....	725	20	14,500
Report of the Superintendent of Insurance of the Dominion of Canada, 1928 (Vol. I).....	3,800	1,548	5,882,400
Report of the Superintendent of Insurance of the Dominion of Canada, 1928 (Vol. II).....	4,800	1,252	6,009,600
Annual Statement required from Canadian Companies Licensed to Transact Business of Insurance, other than Life Insurance, in Dominion of Canada, 1929.....	500	48	24,000
Annual Statement required from British and Foreign Companies, Licensed to Transact Business of Insurance, other than Life Insurance, in the Dominion of Canada, 1929.....	1,325	32	42,400
Report of the Superintendent of Insurance of the Dominion of Canada, 1928—Loan and Trust Companies.....	300	186	55,800
Railway Fire Protection in Canada (Bulletin No. 4).....	1,000	24	24,000
List of Insurance Companies Licensed to do Business in Canada under The Insurance Act (Extract from <i>The Canada Gazette</i> , January 11, 1930).....	800	20	16,000
Unseen Hazards in Hospitals, Clinics and other Institutions (Bul- letin No. 1).....	2,000	64	128,000
List of Securities held by Insurance, Loan and Trust Companies in Canada, as at December 31, 1929.....	800	332	265,600
<i>BILINGUAL</i>			
Abstract of Statements of Insurance Companies of Canada, 1928— Relevé des états des compagnies d'assurance du Canada, 1928.....	6,500	498	3,237,000
<i>Interior—</i>			
<i>ENGLISH</i>			
Regulations for the Disposal of Petroleum and Natural Gas Rights in Crown Reserves, etc.....	5,000	8	40,000
Catalogue of Lantern Slide Lectures, 1928.....	7,500	8	60,000
Vacations in Canada—A hand-book of informations for Tourists and Sportmen (Second Edition, 1929).....	25,000	100	2,500,000
Jasper National Park, 1928.....	10,000	184	1,840,000
Banff, Kootenay and Yoho National Parks—General Informa- tions.....	25,000	16	400,000
The Migratory Birds Convention Act and Federal Regulations for the Protection of Migratory Birds, September 1, 1929.....	19,925	36	717,300
Central Electric Stations in Canada (Water Resources Paper No. 55).....	4,000	584	2,336,000
Yukon—Land of the Klondyke.....	15,000	48	720,000
Winter in Canada.....	52,343	20	1,046,860
Motoring in Canada.....	30,000	20	60,000
Canoeing in Canada.....	15,000	16	240,000
Precise Levelling in Ontario—South of Parry Sound (Publication No. 19).....	700	96	67,200
Guide to Fort Wellington and Vicinity, Prescott, Ont.....	10,000	36	360,000
Fishing in Canada.....	25,000	20	500,000
Forestry Lessons.....	15,000	72	1,080,000
Annual Report of the Topographical Survey, 1927-28.....	700	32	22,400
Carried forward.....	4,998,184	31,586	184,484,058

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	4,998,184	31,586	184,484,058
<i>Interior—Continued</i>			
<i>ENGLISH—Continued</i>			
National Parks of Canada—Report of the Commissioner, 1927-28.	2,500	40	100,000
Waterton Lakes Park.....	25,000	16	400,000
Canoe Routes to Hudson Bay.....	8,125	20	162,500
How to Read Topographic Maps (Bulletin No. 59).....	10,000	24	240,000
Regulations governing Placer Mining in Manitoba, Saskatchewan, Alberta and the North-West Territories in Canada.....	3,000	20	60,000
Prince Albert National Park.....	10,000	24	240,000
Waterton Lakes Park.....	10,500	48	504,000
List of Telephone Subscribers for Banff, June 1, 1929.....	400	10	4,000
An Ordinance respecting the Exportation of Furs from the North- West Territories passed by the North-West Territories Council, 1929.....	2,000	8	16,000
Dominion Lands—Hand-book—For the information of the Public, June 1, 1929.....	15,000	48	720,000
Rocky Mountain Circle Tours.....	50,000	8	400,000
The Muskrat—A Canadian Fur Resource.....	12,600	32	403,200
The Kicking Horse Trail.....	25,100	48	1,204,800
Precise Levelling in Quebec—North of St. Lawrence River (Publi- cation No. 18).....	600	82	49,200
Precise Levelling in Quebec—South of St. Lawrence River (Publi- cation No. 17).....	500	58	29,000
Regulations governing the Granting of Yearly Licences and Permits to Cut Timber on Dominion Lands in Manitoba, Saskatche- wan, etc.....	5,000	32	160,000
Report of the Royal Commission on the Transfer of the Natural Resources of Manitoba.....	2,000	48	96,000
Kootenay National Park and the Banff-Windermere Highway....	25,000	48	1,200,000
Through the Heart of the Rockies and Selkirks (Fourth Edition)	10,000	122	1,220,000
Precise Levelling in Ontario—North of Parry Sound (Publication No. 20).....	600	84	50,400
Elk Island National Park.....	25,000	8	200,000
Canada's Forests.....	56,130	48	2,694,240
Precise Levelling in Manitoba (Publication No. 21).....	500	56	28,000
Arctic and Western Hudson Bay Drainage in Alberta, Saskatche- wan, Manitoba and Western Ontario, Climatic Year 1926-27 (Water Resources Paper No. 57).....	1,800	224	403,200
Publications of the Natural Resources Intelligence Service.....	20,000	24	480,000
Annual Report of the Director of the Geodetic Survey of Canada, 1927-28.....	1,500	32	48,000
The Geological Story of Jasper National Park, Canada.....	10,000	52	520,000
Vacations in Canada.....	16,200	96	1,555,200
The Christmas Tree Trade in Canada (Forestry Topic No. 6)....	1,000	8	8,000
Public Auction at Chaplin, Sask., November 25, 1929.....	500	16	8,000
Index of Gazetted Orders in Council for 1924-25-26 (Vol. 44).....	50	42	2,100
Tree-Planting on the Prairies of Manitoba, Saskatchewan and Alberta (Forest Service—Bulletin No. 1).....	10,000	64	640,000
Reindeer Grazing in Northwest Canada.....	5,000	48	240,000
Agreement made on the Fourteenth Day of December, 1929, be- tween the Dominion of Canada and the Province of Manitoba.	1,000	40	*20,000
Confidential Document.....	550	16	8,800
Report of the Director of Forestry, 1927-28.....	2,000	66	132,000
Forestry Lessons.....	5,080	72	365,760
Extract from a Report of the Committee of the Honourable the Privy Council, approved by His Excellency, on February 20, 1900.....	150	12	1,800
Agreement made on the Fourteenth Day of December, 1929, be- tween the Dominion of Canada and the Province of Alberta....	500	16	8,000
The Preparation of Pelts for the Market.....	25,000	24	*300,000
Stain and Decay in Lumber—Seasonable Yards (Forest Service— Circular No. 27).....	2,000	16	32,000
Pacific Drainage—British Columbia and Yukon Territory, Clima- tic Year 1926-27 (Water Resources Paper No. 59).....	1,800	242	435,600
Regulations for the Disposal of Coal Mining Rights.....	3,000	16	48,000
Carried forward.....	5,404,869	33,644	199,921,858

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	5,404,869	33,644	199,921,858
<i>Interior—Concluded</i>			
ENGLISH—Continued			
Confidential document.....	170	16	2,720
Board of Examiners for Dominion Land Surveyors—Examples of Descriptions.....	1,000	24	24,000
Regulations for the Issue of Oil and Gas Permits and Leases in the Northwest Territories of Canada, etc.....	3,000	16	48,000
Precise Levelling in British Columbia (Publication No. 24).....	650	96	62,400
Camping in Canada.....	35,000	12	420,000
Precise Levelling in Saskatchewan (Publication No. 22).....	600	96	57,600
Precise Levelling in Alberta (Publication No. 23).....	600	80	48,000
Regulations respecting Game in the Northwest Territories.....	1,500	48	72,000
Regulations for the Disposal of Petroleum and Natural Gas Rights	5,000	36	180,000
Natural Resources of Quebec (Revised Edition).....	20,000	132	2,640,000
Banff-Kootenay and Yoho National Parks—General Information..	50,000	16	800,000
Catalogue of Maps, Plans and Publications of the Topographical Survey (Fifth Edition).....	2,500	24	60,000
Preliminary Report on the Aerial Mineral Exploration of Northern Canada.....	2,000	32	64,000
Form—Class Volume Tables.....	3,000	216	648,000
Adjustment of the Precise Level Net of Canada, 1928 (Geodetic Survey—Publication No. 28).....	550	48	26,400
Agreement on the Subject of the Transfer of the Natural Resources of Saskatchewan.....	600	16	9,600
Natural Resources, Canada.....	477,208	48	*1,908,832
Publications of the Dominion Astrophysical Observatory.....	2,825	62	*44,600
Publications of the Dominion Observatory.....	5,822	244	*206,922
BILINGUAL			
St. Lawrence and Southern Hudson Bay Drainage, Ontario and Quebec, Climatic Years 1925-26 and 1926-27 (Water Resources Paper No. 58)—Bassins du Saint-Laurent et de la Baie d'Hudson Sud, l'Ontario et le Québec, années climatologiques 1925-26 et 1926-27 (ressources hydrauliques, bulletin n° 58).....	2,394	392	938,448
FRENCH			
Les oiseaux—Richesse nationale.....	5,000	20	100,000
La solidité des boîtes de beurre et de fromage renforcées et non renforcées (service forestier—circulaire n° 24).....	3,500	8	28,000
Loi de la convention concernant les oiseaux migrateurs et règlements fédéraux pour la protection des oiseaux migrateurs, 1er septembre 1929.....	2,500	40	100,000
Rapport de la commission royale sur le transport des ressources naturelles du Manitoba.....	1,000	48	48,000
La préparation des peaux pour le commerce.....	5,000	12	60,000
Ressources naturelles, Canada.....	127,425	48	*510,100
<i>International Joint Commission—</i>			
ENGLISH			
Preliminary Report to International Joint Commission relating to Official Reference <i>re</i> Levels of Rainy Lake and other Upper Waters—Text.....	1,000	44	44,000
Preliminary Report to International Joint Commission relating to Official Reference <i>re</i> Levels of Rainy Lake and other Upper Waters—Tables.....	1,000	324	324,000
<i>Justice—</i>			
ENGLISH			
Extracts from Penitentiary Regulations.....	1,000	8	8,000
Pamphlet No. 50.....	7,000	16	*56,000
Factum.....	700	1,026	*101,400
Carried forward.....	6,174,413	36,892	209,562,880

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	6,174,413	36,892	209,562,880
<i>Labour—</i>			
ENGLISH			
An Old Age of Comfort and Happiness.....	25,000	32	*400,000
An Act respecting Old Age Pensions.....	1,000	8	8,000
Constitutional Validity of Dominion Legislation respecting Com- bines.....	300	16	4,800
Some Facts and Reflections regarding Employment and Unem- ployment Statistics.....	100	8	800
League of Nations International Labour Organization.....	300	24	7,200
Recent Legal Decisions affecting Labour.....	100	8	800
Eighteenth Annual Report on Labour Organization in Canada, 1928	4,506	256	1,153,536
Second Annual Report on Co-operative Associations in Canada, 1929	1,650	84	138,600
Eighth Report on Organization in Industry, Commerce and the Professions in Canada, 1929.....	2,000	132	264,000
Labour Legislation in Canada, 1928.....	5,000	740	3,700,000
Old Age Pensions in Canada.....	1,000	112	112,000
League of Nations International Labour Organization—Thirteenth Session of the International Labour Conference.....	200	10	2,000
Mother's Allowance in Canada—Provisions of Acts in Force in Five Provinces.....	100	8	800
Index to <i>The Labour Gazette</i> , Vol. XXIX, 1929.....	11,000	36	396,000
Investigation into the Amalgamated Builder's Council and related Organizations—Reports of Commissioner, October 31 and De- cember 18, 1929.....	4,000	40	160,000
Prices in Canada and Other Countries, 1929.....	17,175	64	*549,600
Eleventh Report of the Employment Service Branch of the De- partment of Labour, Canada, on the Operations under the Em- ployment Offices Co-ordination Act, 1928-29.....	250	16	4,000
Wages and Hours of Labour in Canada, 1920 to 1929.....	17,675	208	*1,838,200
Strikes and Lockouts in Canada and Other Countries, 1929.....	850	32	27,200
Sixth Report of the Registrar of the Combines Investigation Act, 1928-29.....	300	12	3,600
Twenty-Second Report of the Registrar of Boards of Conciliation and Investigation of Proceedings under The Industrial Dis- putes Investigation Act, 1928-29.....	300	24	7,200
Vocational Education.....	4,700	48	225,600
<i>The Labour Gazette</i> , Nos. 4 to 12, Vol. XXIX, and Nos. 1 to 3, Vol. XXX.....	133,947	1,482	*16,489,766
FRENCH			
L'organisation internationale du travail.....	50	8	400
Comité permanent des relations industrielles et internationales, Chambre des Communes, 1928.....	500	154	77,000
Index— <i>Gazette du Travail</i> , volume XXVIII, 1928.....	2,100	40	84,000
L'organisation internationale du travail de la Société des Nations..	100	24	2,400
Neuvième rapport de la Division de l'enseignement technique du ministère du Travail du Canada, exercice clôturé le 31 mars 1928	200	56	11,200
Deuxième rapport annuel sur les sociétés coopératives au Canada, 1929.....	300	84	25,200
Les allocations maternelles au Canada—Législation en la matière en vigueur dans cinq provinces du Dominion.....	50	8	400
L'organisation internationale du travail de la Société des Nations..	100	16	1,600
Prix au Canada et à l'étranger, 1929.....	2,300	64	*73,600
Huitième rapport sur l'organisation de l'industrie du commerce et des professions libérales au Canada, 1929.....	300	132	39,600
Salaires et heures de travail en Canada, 1920 à 1929.....	2,300	216	*248,000
<i>La Gazette du Travail</i> , nos 3 à 12, Vol. XXIX, et nos 1 et 2, Vol. XXX.....	21,425	1,516	*2,700,900
<i>Library of Parliament—</i>			
BILINGUAL			
Annual Supplement to the Catalogue of the Library of Parliament, 1928—Supplément annuel au catalogue de la bibliothèque du parlement, 1928.....	550	178	97,900
Carried forward.....	6,436,141	42,788	238,418,782

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	6,435,141	42,788	238,418,782
<i>Marine and Fisheries—</i>			
ENGLISH			
Abridged Edition of Tide Tables for Quebec and Father Point with Tidal Differences for the St. Lawrence, 1930.....	1,000	32	32,000
A Popular Account of the Fishes of Canada from the Lampreys and Hogfishes to the Viper Fishes inclusive.....	3,000	40	120,000
Regulations for the Loading and Carriage of Grain Cargoes.....	5,500	32	*88,000
Special Fishery Regulations for the Province of British Columbia (Office Consolidation).....	3,000	48	144,000
Sockeye Salmon Fisheries—Convention between Canada and the United States, etc.....	2,500	8	20,000
Tariff of Tolls and Dues to be Levied for the Use of the Lumber and Fish Assembly Wharf at Port Alberni, B.C.....	500	8	4,000
Regulations for the Use and Management of Government Wharves in Canada and Tariff of Tolls and Dues Leviable in Connection therewith.....	1,000	20	20,000
Tide Tables for Quebec and Father Point with Tidal Differences for the St. Lawrence, 1930 (Abridged Edition).....	6,000	64	*192,000
Abridged Edition of Tide Tables for St. John, N.B., with Tidal Differences for the Bay of Fundy, and Time of High Water at Windsor, N.S.....	21,000	64	*672,000
Results of Observations at the Canadian Magnetical Observatories, Agincourt and Meanook, 1924.....	300	48	14,400
List of Lights and Fog-Signals on the Atlantic Coast, including the Gulf of St. Lawrence to Head of Ocean Navigation of the Dominion of Canada (Corrected to March 1, 1929).....	1,911	328	626,808
Abridged Edition of Tide Tables for Vancouver and Sand Heads, B.C., and Slack Water for First Narrows and Active Pass, etc., 1930.....	12,000	48	576,000
Tide Tables for the Eastern Coasts of Canada, 1930.....	14,000	96	1,344,000
Abridged Edition of Tide Tables for Charlottetown, P.E.I., and Strait of Canso, etc., 1930.....	3,000	32	96,000
Abridged Edition of Tide Tables for Prince Rupert, 1930.....	8,000	24	192,000
Tide Tables for the Pacific Coast of Canada, 1930.....	32,000	80	2,560,000
Tide Tables and Information connected with the Ship Channel from Father Point to Montreal, 1929.....	900	124	111,600
By-Laws of the Pilotage District of British Columbia.....	150	24	3,600
Official List of Radio Stations of Canada, 1929 Edition (Supplement 2).....	1,500	32	48,000
In the Matter of a Reference as to the Constitution Validity of Certain Sections of the Fisheries Act, 1914.....	2,000	16	32,000
Statistics of the Haddock Fishery in North American Waters.....	2,000	16	32,000
The Fish Inspection Act.....	2,500	24	60,000
Annual Report on Fish Culture, 1928.....	500	76	38,000
Climate and Meteorology.....	200	24	4,800
Abridged Edition of Tide Tables for St. John, N.B., with Tidal Differences for the Bay of Fundy, and Time of High Water at Windsor, N.S., 1930.....	3,000	32	96,000
Abridged Edition of Tide Tables for Vancouver and Sand Heads, B.C., and Slack Water for First Narrows and Active Pass, etc., 1930.....	2,000	48	96,000
Historical Account of the Lobster Canning Industry.....	2,000	24	48,000
Regulations relating to the issue for Motor Engineer Certificates.....	1,000	16	16,000
Rules of the Road for the Great Lakes.....	500	20	10,000
An Act respecting Radiotelegraphy.....	400	8	3,200
Report of the Conference on the Operation of Dominion Legislation and Merchant Shipping Legislation, 1929.....	200	56	11,200
Canada's Fisheries.....	3,000	16	48,000
Annual Report of the Radio Branch, 1928-29.....	300	36	10,800
International Rules of the Road.....	500	24	12,000
Special Fishery Regulations for the Provinces of Saskatchewan and Alberta and the Territories North thereof (Office Consolidation).....	3,011	36	108,396
List of Lights, Fog-Signals and Radio Aids to Navigation on the Pacific Coast and the Rivers and Lakes of British Columbia, Canada (Corrected to March 1, 1930).....	1,100	96	105,600
Carried forward.....	6,577,613	44,508	246,015,186

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	6,577,613	44,508	246,015,186
<i>Marine and Fisheries—Concluded</i>			
ENGLISH—Concluded			
Index to Notice to Mariners, 1929 (Nos. 1 to 97 inclusive).....	100	16	1,600
St. Lawrence Pilot (below Quebec), Fifth Edition, 1929.....	1,000	248	248,000
List of Lights, Fog-Signals and Radio Aids to Navigation on the Inland Waters (West of Montreal and East of British Colum- bia) of the Dominion of Canada (Corrected to March 1, 1930....	1,100	160	176,000
Fish Canning in Canada.....	3,000	8	24,000
Fisheries News Bulletin.....	1,600	8	12,800
Quarterly Bulletin of Sea Fishery Statistics.....	3,000	64	*480,000
Monthly Record of Meteorological Observations.....	9,688	640	*774,740
BILINGUAL			
List of Shipping, 1928—Liste des navires, 1928.....	700	276	193,200
Report of the Royal Commission on Radio Broadcasting—Rap- port de la commission royale de la radiodiffusion.....	3,000	64	192,000
International Conference on Safety of Life at Sea, 1929—Conférence internationale pour la sauvegarde de la vie humaine en mer, 1929	500	100	50,000
Supplement No. 3 to Official List—Radio Stations of Canada (1929 Edition), September 1, 1929—Supplément n° 3 à la liste officielle des stations de radio du Canada (édition de 1929), 1er septem- bre 1929.....	1,500	20	30,000
Supplement No. 4 to Official List—Radio Stations of Canada (1929 Edition), November 1, 1929—Supplément n° 4 à la liste officielle des stations de radio du Canada (édition pour 1929), 1er no- vembre 1929.....	1,500	16	24,000
Supplement to List of Vessels, 1928—Supplément à la liste des navi- res, 1928.....	1,411	44	*21,376
FRENCH			
Règlements de pêche particuliers à la province de Québec (codifi- cation administrative).....	500	48	24,000
Règlements de pêche particuliers à la province du Nouveau-Bruns- wick (codification administrative).....	500	52	26,000
Règlements concernant les engins de sauvetage.....	200	52	10,400
Règlements concernant l'usage et la gestion des quais de l'Etat au Canada et des péages et droits exigibles relativement à ces quais.....	500	24	12,000
Loi relative à l'inspection des poissons, etc.....	1,500	24	36,000
Règlements internationaux pour prévenir les abordages.....	500	20	10,000
Rapport annuel du service de la radio, 1928-29.....	200	40	8,000
Bulletin des renseignements sur les pêcheries.....	400	8	3,200
<i>Mines—</i>			
ENGLISH			
A Generic Revision of North American Agroted Moths (Bulletin No. 55).....	1,000	80	80,000
Investigations in Ore Dressing and Metallurgy, 1927.....	4,000	190	760,000
Investigations of Mineral Resources and the Mining Industry, 1927	3,979	64	254,656
A Faunal Investigation of Southern Baffin Island (Bulletin No. 53)	1,000	154	154,000
Limestone of Quebec and Ontario.....	1,250	88	110,000
Birds of Western Canada—Revised Edition (Bulletin No. 41)....	2,000	462	924,000
A Transverse Polyconic Projection for General Maps of Canada (Bulletin No. 57).....	2,000	24	48,000
Contributions to Canadian Palaeontology (Bulletin No. 54).....	1,000	102	102,000
Milling Plants in Canada (List No. 1-2).....	1,000	8	8,000
Core Drilling Sands of Northern Alberta.....	500	32	16,000
Carried forward.....	6,627,741	47,644	250,829,158

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	6,627,741	47,644	250,829,158
<i>Mines—Concluded</i>			
<i>ENGLISH—Concluded</i>			
Coal Mines in Canada (List No. 4).....	2,000	20	40,000
Geological Survey—General Instructions for Tidal Officers.....	500	48	24,000
Manufacturers of Clay Products in Canada (List No. 6-3).....	1,000	12	12,000
Stone Quarry Operators in Canada (List No. 6-6).....	1,000	12	12,000
Sand and Gravel Deposits in Canada (List No. 6-5).....	1,500	12	18,000
Why you should Insulate your Home.....	25,000	24	600,000
Annual Report of the Explosives Division of the Department of Mines, 1928.....	2,000	24	48,000
Comparison of the Cost and Convenience of House Heating with Various Fuels.....	5,000	12	60,000
Liquid Fuels.....	500	40	20,000
Investigations in Ceramics and Road Materials, 1927.....	3,500	82	287,000
Preliminary Report on Woman River and Ridout Map—Areas, Sudbury District, Ontario (Memoir 157).....	2,500	30	75,000
National Museum of Canada—Annual Report for 1927 (Bulletin No. 56).....	3,500	116	406,000
Gold Fields of Nova Scotia (Memoir 156).....	1,500	300	450,000
Natural Gas and Petroleum Wells (List No. 5).....	1,500	20	30,000
Comparative Tests of Various Fuels when Burned in a Domestic Hot Water Boiler.....	4,050	104	421,200
Humidity in House Heating—The Cause and Control of Air Dry- ness in House Heating.....	36,200	48	1,737,600
Notes on the Beothuk Indians of Newfoundland (From Annual Report, 1927, National Museum of Canada).....	100	10	1,000
Kitchen—Middens of the Pacific Coast of Canada (From Annual Report, 1927, National Museum of Canada).....	100	8	800
Materia Medica of the Bella Coola and neighbouring Tribes of British Columbia (From Annual Report, 1927, National Museum of Canada).....	100	24	2,400
Birds and Mammals of the Mount Logan Expedition, 1925.....	100	44	4,400
Summary Report, 1928, Part B.....	3,174	138	438,012
Britannia Beach Map-area, British Columbia (Memoir 158).....	2,500	148	370,000
Anthropometry of the Cree and Saulteaux Indians in Northeastern Manitoba (Bulletin No. 59).....	1,155	92	106,260
Solid Fuels (Part I).....	500	82	41,000
Summary Report, 1928 (Part A).....	3,016	212	639,392
Some Shell-heaps in Nova Scotia (Bulletin No. 47).....	1,000	194	194,000
Bear River and Stewart Map-areas, Cassiar District, B.C. (Me- moir 159).....	2,500	94	235,000
The Testing of Non-bituminous Road Materials.....	1,000	16	16,000
Gold Mines in Canada (List No. 2-1).....	1,000	8	8,000
Industrial Fuel and Power Statistics for Ontario, 1925.....	3,850	32	123,200
Investigations of Fuels and Fuel Testing, 1927.....	4,010	126	505,260
Horton—Windor District, Nova Scotia (Memoir 55).....	2,500	268	670,000
Mesozoic Palaeontology of Blaimore Region, Alberta (Bulletin No. 58).....	1,150	146	167,900
National Museum of Canada—Annual Report for 1928 (Bulletin No. 62).....	2,500	40	100,000
A Study of the Canadian Races of Rock Ptarmigan.....	300	16	4,800
<i>FRENCH</i>			
Rapport sommaire, 1926 (partie 6).....	1,250	84	105,000
Deuxième rapport des travaux de la Commission fédérale du com- bustible, 1923-1928.....	5,000	64	320,000
Rapport annuel de la division des explosifs du ministère des Mines, 1928.....	1,000	24	24,000
Rapport sommaire, 1927 (partie C).....	1,316	56	73,696
L'humidité dans les maisons chauffées.....	5,300	52	275,600
Géologie et minéraux industriels du Canada.....	1,450	284	411,800
Musée National du Canada—Rapport annuel, 1926 (bulletin n° 50).....	1,250	80	100,000
Carried forward.....	6,766,112	50,890	260,007,478

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	6,766,112	50,890	260,007,478
<i>National Defence—</i>			
ENGLISH			
Instructions for Practice—Field Army Artillery, Canada, 1929.....	500	36	18,000
Index to General Orders, 1928.....	2,400	24	57,600
Memorandum for Camps of Instruction, 1929.....	5,000	88	440,000
Report on Civil Aviation and Civil Government Air Operations, 1928.....	3,500	118	413,000
Addendum to Canadian Naval Regulations.....	324	44	14,256
Air Regulations, 1920, with Amendments to December 31, 1928....	1,000	48	48,000
Hand-book on Medical Selection of Flying Personnel, April 1, 1929.	500	38	19,000
Index to Militia Orders, 1928.....	2,411	20	48,220
Provisional Mobilization Instructions for National Defence, 1929..	2,000	88	176,000
Instructions for the Canadian Officers' Training Corps, 1929.....	3,000	68	204,000
Appendix to General Orders (No. 110, 1929)—Battle Honours awarded for the Great War (List No. 1).....	350	40	14,000
Appendix to General Order (No. 123 of 1929)—Battle Honours awarded for the Great War (List No. 2).....	350	32	11,200
The Canadian Navy List for November, 1929 (Corrected to October 31, 1929).....	200	40	8,000
Air Regulations, 1920, with Amendments to December 31, 1928....	1,000	48	48,000
Canadian Battlefield Memorials.....	2,000	168	*168,000
King's Regulations and Orders for the Canadian Militia, 1926— Amendments (No. 33).....	6,000	96	576,000
Appendix to General Order (No. 133)—Peace Establishments.....	100	24	2,400
Militia Orders, 1929-30.....	255,400	658	*1,573,600
Militia General Orders, 1929-30.....	46,354	300	*2,441,000
FRENCH			
Rapport sur l'aviation civile et les opérations aériennes du gouver- nement civil, 1928.....	500	124	62,000
Instructions pour les corps-école d'officiers canadiens, 1929.....	300	68	20,400
Ordres de la milice, 1929-30.....	10,300	544	*55,600
Ordres généraux de la milice, 1929-30.....	2,000	260	26,000
<i>National Gallery of Canada—</i>			
ENGLISH			
The Royal Canadian Academy of Arts—Diploma Gallery.....	1,000	32	32,000
Annual Report of the Board of Trustees, 1928-29.....	1,500	16	24,000
<i>National Research Council—</i>			
ENGLISH			
The Drying of Wheat (Report No. 24).....	2,000	128	256,000
<i>National Revenue—</i>			
ENGLISH			
Petroleum and Naphtha Inspection Act.....	4,000	24	96,000
Hydrometer Tables.....	200	180	36,000
The Special War Revenue Act and Amendments to date, July, 1929	25,000	32	800,000
An Act to amend the Customs Tariff.....	1,200	8	9,600
Memorandum No. 188, Supplement "A".....	10,000	16	*80,000
Memorandum No. 229.....	2,000	16	32,000
An Act to Supplement the Revenue required to meet War Expen- ditures.....	300	48	14,400
Department of National Revenue, Canada, Excise Division— Regulations.....	30,000	16	480,000
Official List of Licensed Manufacturers and Bonded Warehouses, 1929-30.....	1,100	72	79,200
Carried forward.....	7,189,901	54,452	268,390,954

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	7,189,901	55,452	268,390,954
<i>National Revenue—Concluded</i>			
<i>ENGLISH—Concluded</i>			
Departmental Regulations respecting Distilleries and Products thereof.....	2,500	32	80,000
Factum.....	80	194	*7,760
Summary of Customs Manifesting and Coasting Regulations.....	2,000	32	64,000
The Saskatchewan Co-operative Wheat Producers, Limited, 1929—Supplement to the Case on Appeal (Exhibit No. 1)	40	12	480
Departmental Regulations and Instructions for the Survey of Maltheuses and Breweries, December 2, 1929.....	2,500	16	40,000
Customs Statistical Classification—Exports—In effect April 1, 1930	1,500	28	42,000
The National Revenue Review, April, 1929, to March, 1930.....	74,800	288	*1,795,200
<i>FRENCH</i>			
Ministère du Revenu National du Canada, Service de l'Accise—Règlements.....	7,000	16	112,000
Alcool dénaturé et alcool spécialement dénaturé, février 1929.....	1,000	16	16,000
Règlements administratifs concernant les distilleries et leurs produits.....	1,011	24	24,264
Loi modifiant le tarif des douanes.....	500	8	4,000
Mémoire n° 188, Supplément "A".....	3,000	8	24,000
Loi des douanes avec Index et la Loi du ministère du Revenu Nationale (codification à l'usage des bureaux).....	1,000	100	100,000
Loi d'inspection du pétrole et du naphte.....	1,500	24	36,000
Loi spéciale des revenus de guerre, 1915 (codification à l'usage des bureaux).....	5,000	32	160,000
La Revue du Revenu National, April, 1929, to March, 1930.....	14,750	288	*354,000
<i>Patent and Copyright Office—</i>			
<i>ENGLISH</i>			
Rules and Forms.....	3,000	16	48,000
Directions for the Prosecution of Trade Marks Applications.....	500	8	4,000
An Act respecting Trade Marks and Industrial Designs.....	3,000	24	72,000
An Act respecting Copyright.....	1,000	36	36,000
The Canadian Patent Office Record—Annual Index (Volume LVII)	1,011	208	210,288
The Canadian Patent Office Record.....	51,562	4,068	*4,112,748
<i>BILINGUAL</i>			
Convention of Berne for the Protection of Literary and Artistic Works—Convention de Berne pour la protection des œuvres littéraires et artistiques.....	300	20	6,000
<i>FRENCH</i>			
Règlements et formules.....	2,000	16	32,000
Loi concernant le droit d'auteur.....	500	36	18,000
Loi concernant les marques de commerce et les dessins de fabrique.	1,000	32	32,000
<i>Pensions and National Health—</i>			
<i>ENGLISH</i>			
Compensation Rates, September 1, 1928.....	250	32	8,000
Sanitary Kitchen Tables—Vetcraft Industries.....	3,000	16	48,000
An Explanation of the Principal Features of the Returned Soldiers' Insurance Act (Revised Edition).....	10,000	8	80,000
"Toys that Last"—Vetcraft Industries.....	3,011	64	192,704
Small-pox and Vaccination—A Popular Treatise (National Health, Publication No. 32.).....	2,000	32	64,000
The Pension Act (Office Consolidation).....	2,500	40	100,000
Carried forward.....	7,392,716	60,226	276,314,398

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	7,392,716	60,226	276,314,398
<i>Pensions and National Health—Concluded</i>			
BILINGUAL			
Abstracts of Current Public Health Literature—Extraits de publications courantes sur la santé publique.....	10,700	64	684,800
FRENCH			
Règlements établis sous l'empire de la Loi des aliments et drogues par arrêté ministériel du 6 février 1928.....	5,000	116	580,000
<i>Post Office—</i>			
ENGLISH			
Manitoba and Saskatchewan Distribution List, 1929.....	2,200	188	413,600
Schedule of Mail Trains and Water Services—West of Port Arthur (Western Districts), June, 1929.....	1,200	146	175,200
Schedule of Mail Trains and Water Services (Eastern Districts), June, 1929.....	1,150	152	174,800
Scheme of Mail Trains and Water Services (Central Districts), June, 1929.....	1,400	144	201,600
Scheme of the Dominion of Canada from the Standpoint of New York City Post Office (Division of Registered Mails), January, 1929.....	200	12	2,400
Number of Householders at Rural Post Offices and on Rural Routes in the Province of Ontario, April, 1929.....	3,000	68	204,000
Postal Information, 1929.....	373,300	48	*8,959,200
Number of Householders at Rural Post Offices and on Rural Routes in the Maritime Provinces, July, 1929.....	1,200	48	57,600
Schedule of Mail Trains, Water Services and Air Mail Services (Eastern Districts), October, 1929.....	1,100	152	167,200
Schedule of Mails Trains, Water Services and Air Mail Services (Central Districts), October, 1929.....	1,400	144	201,600
Toronto City Sortation Book.....	700	80	56,000
Schedule of Mail Trains, Water Services and Air Services (Western Districts), October, 1929.....	1,225	152	186,200
Montreal City Preliminary Distribution List.....	1,000	128	128,000
Canada Official Postal Guide, 1930.....	13,675	612	8,369,100
Canada Official Postal Guide, 1930—Part I.....	4,010	248	994,480
Canada Official Postal Guide, 1930—Part II.....	35	354	12,390
Monthly Distribution List, 1929-30.....	56,100	102	*438,200
Ontario Distribution List, 1930.....	3,200	148	473,600
Monthly Supplement to Canadian Official Postal Guide, 1929-30...	130,900	114	*1,251,400
Monthly Supplement to Canadian Official Postal Guide and Money Orders Information, 1929-30.....	72,400	250	*1,509,000
BILINGUAL			
Table to Enable Postmasters to Calculate the Value of Postal Notes—Table permettant aux maîtres de poste de calculer la valeur des bons de poste.....	1,250	8	10,000
Number of Householders at Rural Post Offices and on Rural Routes in Quebec Province, January, 1930—Nombre de chefs de maison par bureaux de poste ruraux et routes de distribution rurale de la province de Québec, janvier 1930.....	1,100	64	70,400
FRENCH			
Guide officiel du service postal canadien, 1930.....	3,120	620	1,934,400
Guide officiel du service postal canadien, 1930—Partie I.....	1,100	254	279,400
Supplément mensuel au guide officiel du service postal canadien, 1929-30.....	30,000	100	*250,000
Supplément mensuel au guide officiel du service postal canadien et renseignements sur les mandats de poste, 1929-30.....	19,200	269	*250,000
Carried forward.....	8,133,581	65,011	304,348,968

TABLE NO. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,133,581	65,011	304,348,968
†Public Printing and Stationery—			
ENGLISH			
Regulations for the Disposal of Minerals other than Coal, Petroleum and Natural Gas, on Indian Reserves.....	150	16	2,400
Report of the Canadian Delegates to the Tenth Assembly of the League of Nations, Geneva, September 2 to 25, 1929.....	450	44	19,800
The National Gallery of Canada—Annual Report of the Board of Trustees, 1928-29.....	150	16	2,400
Senators of Canada, according to Seniority, February, 1930.....	200	12	2,400
The Canadian Historical Association—Report of the Annual Meeting held at Ottawa, May 22-23, 1929.....	150	144	21,600
List of Lights, Fog-Signals and Radio Aids to Navigation on the Pacific Coast and the Rivers and Lakes of British Columbia, Canada (Corrected to March 1, 1930).....	6	96	576
The Composition of Canadian Cheddar and Process Cheese (Bulletin No. 79—New Series).....	150	20	3,000
Calf Feeding Club Policy, Quebec.....	150	8	1,200
Calf Feeding Club Policy, Maritime Provinces.....	150	8	1,200
Agreement between the Government of the Dominion of Canada and the German Reich for the Return of Unliquidated Sequestered German Property.....	250	12	3,000
St. Lawrence Pilot (below Quebec), Fifth Edition, 1929.....	150	248	37,200
Preliminary Report on the Aerial Mineral Exploration of Northern Canada.....	350	32	11,200
Bacteriological Investigations of Milking Machines (Bulletin No. 127—New Series).....	150	40	6,000
Canada, 1930—A hand-book of Present Conditions and Recent Progress in the Dominion.....	2,000	192	384,000
List of Lights, Fog-Signals and Radio Aids to Navigation on the Inland Waters (West of Montreal and East of British Columbia) of the Dominion of Canada (Corrected to March 1, 1930).....	6	160	960
Annual Survey of Education in Canada, 1928.....	150	270	40,500
Egg Grading Report (Pamphlet No. 70).....	150	12	1,800
Fish Canning in Canada.....	250	8	2,000
Adjustment of the Precise Level Net of Canada, 1928 (Geodetic Survey Publication No. 28).....	150	48	7,200
Preliminary Report to International Joint Commission relating to Official Reference <i>re</i> Levels of Rainy Lake and Other Upper Waters—Text.....	150	44	6,600
Preliminary Report to International Joint Commission relating to Official Reference <i>re</i> Levels of Rainy Lake and Other Waters—Tables.....	150	324	48,600
The Canadian Historical Association—Report of the Annual Meeting held at Ottawa, May 22-23, 1929.....	100	144	14,400
An Act respecting War Veteran's Allowances.....	800	16	12,800
Sample Examination Papers.....	1,500	48	72,000
Report of the Royal Commission on Technical and Professional Services, February, 1930.....	2,000	64	128,000
Commons Debates, March 14, 1930.....	1,000	52	52,000
An Act to amend the Insurance Act.....	800	8	6,400
Annual Survey of Education in Canada, 1928.....	100	272	27,200
A Generic Revision of North American Agnotid Moths (Bulletin No. 55).....	150	80	12,000
Catalogue of Lantern Slide Lectures, 1928.....	125	8	1,000
Investigations in Ore Dressing and Metallurgy, 1927.....	125	190	23,750
Investigations of Mineral Resources and the Mining Industry, 1927.....	150	64	9,600
A Faunal Investigation of Southern Baffin Island (Bulletin No. 53).....	250	154	38,500
Limestone of Quebec and Ontario.....	50	88	4,400
Birds of Western Canada (Bulletin No. 41).....	4,092	462	1,890,504
Vacations in Canada (Second Edition, 1929)—A hand-book of information for Tourists and Sportmen.....	150	100	15,000
Jasper National Park, 1928.....	150	184	27,600
Factum.....	150	128	19,200
List of Acts, Session of 1929.....	100	8	800
Carried forward.....	8,150,835	67,835	307,307,758

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,150,835	67,835	307,307,758
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Index—House of Commons Debates (Unrevised Edition, Session of 1929).....	2,350	132	310,200
Regulations for the Disposal of Petroleum and Natural Gas Rights in Crown Reserves, etc.....	150	8	1,200
A Transverse Polyconic Projection for General Maps of Canada...	150	24	3,600
Report of the Dominion Chemist, 1927-28.....	150	96	14,400
Report of the Dominion Animal Husbandman, 1927-28.....	150	52	7,800
The Conversion of Dry Roughage into a Succulent Feed (Bulletin No. 36—New Series).....	150	40	6,000
Markets of Central America.....	150	132	19,800
Report of the Fur Farms of Canada, 1927.....	150	120	18,000
The Royal Canadian Academy of Arts—Diploma Gallery.....	160	32	5,120
The Drying of Wheat (Report No. 24).....	150	128	19,200
Report on Civil Aviation and Civil Government Air Operations, 1928	150	118	17,700
Air Regulations, 1920, with Amendments to December 31, 1928....	350	48	16,800
Petroleum and Naphtha Inspection Act.....	150	24	3,600
Department of National Revenue, Canada, Excise Division—Regulations.....	150	16	2,400
Official List of Licensed Manufacturers and Bonded Warehouses, 1929-1930.....	150	72	10,800
An Act respecting Proprietary or Patent Medicines with Instructions for Registering and Licensing Medicines.....	100	16	1,600
Preparing Poultry Produce for Market (Bulletin No. 20).....	150	32	4,800
Report of the Chief Supervisor on the Illustration Stations in British Columbia, Alberta, Saskatchewan and Manitoba, 1928	150	84	12,600
Seven Years' Experience with the Combined Reaper-Thresher, 1922-1928 (Bulletin No. 118—New Series).....	150	32	4,800
Report of the Sixth, Seventh and Eighth Annual Canadian National Egg Laying Contests (Bulletin No. 108—New Series).....	125	144	18,000
Studies in Forest Pathology (Bulletin No. 111—New Series).....	150	70	10,500
Experimental Station, Cap Rouge, P.Q.—Report of the Superintendent, 1927.....	125	88	11,000
Experimental Station, Swift Current, Sask.—Report of the Superintendent, 1928.....	125	52	6,500
The Yellow Disease of Hyacinths (Pamphlet No. 104—New Series)	125	8	1,000
Experimental Station, Morden, Man.—Report of the Superintendent 1928.....	125	80	10,000
The Raspberry and its Cultivation in Canada with a Section on Insects affecting the Raspberry (Bulletin No. 114).....	125	28	3,500
The Black Leg Disease of Potatoes—Studies in Potato Diseases (Pamphlet No. 105—New Series).....	125	12	1,500
Cost of Producing Farm Crops in Eastern Canada (Bulletin No. 115—New Series).....	125	48	6,000
Experimental Station, Lennoxville, P.Q.—Report of the Superintendent, 1928.....	125	68	8,500
Experimental Station, Rosthern, Sask.—Report of the Superintendent, 1928.....	150	48	7,200
Report of Economic Fibre Production, 1927.....	125	16	2,000
Experimental Farm, Agassiz, B.C.—Report of the Superintendent, 1928.....	125	40	5,000
Experimental Station, Farnham, P.Q.—Report of the Superintendent, 1928.....	150	20	3,000
Report of the Dominion Apiarist, 1928.....	150	24	3,600
Smut Diseases of Cultivated Plants—Their Cause and Control (Bulletin No. 81—New Series).....	150	80	12,000
Experimental Station, Sidney, B.C.—Report of the Superintendent, 1928.....	150	48	7,200
Canadian National Egg-Laying Contest, 1929-30.....	150	8	1,200
Experimental Farm, Indian Head, Sask.—Report of the Superintendent, 1928.....	125	52	6,500
Experimental Station, Scott, Sask.—Report of the Superintendent, 1928.....	125	64	8,000
Carried forward.....	8,158,720	71,039	307,920,378

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,158,720	71,039	307,920,378
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Bees and How to Keep Them (Bulletin No. 33—New Series).....	150	64	9,600
The Dairy Industry Act and Regulations—Acts, Orders and Regulations (No. 26).....	125	48	6,000
Selection of Lamb Cuts (Pamphlet No. 9—New Series).....	125	8	1,000
Register of Fully Accredited Herds arranged by Breeds as recorded to March 31, 1929).....	150	36	5,400
Fox Ranching in Canada (Bulletin No. 12—New Series).....	125	48	6,000
The Origin and Quality of Commercial Live Stock marketed in Canada in 1928 (Report No. 9).....	150	48	7,200
Household Insects and their Control (Bulletin No. 112—New Series).....	125	84	10,500
The Canadian Record of Performance for Pure-Bred Poultry, 1927-28 (Report No. 9).....	125	112	14,000
Winter in Canada.....	150	20	3,000
Canoeing in Canada.....	150	16	2,400
Precise Levelling in Ontario—South of Parry Sound (Publication No. 19).....	150	96	14,400
Guide to Fort Wellington and Vicinity, Prescott, Ont.....	150	36	5,400
Fishing in Canada.....	150	20	3,000
Annual Report of the Topographical Survey, 1927-28.....	150	32	4,800
Waterton Lakes Park.....	150	16	2,400
National Parks of Canada—Report of the Commissioner, 1927-28..	150	40	6,000
Canoe Routes to Hudson Bay.....	150	20	3,000
How to Read Topographic Maps.....	150	24	3,600
Regulations governing Placer Mining in Manitoba, Saskatchewan, Alberta and the North-West Territories in Canada.....	150	20	3,000
Prince Albert National Park.....	150	24	3,600
Waterton Lakes Park.....	150	48	7,200
An Ordinance respecting the Exportation of Furs from the North West Territories passed by the North West Territories Council, 1929.....	150	8	1,200
Rocky Mountain Circle Tour.....	150	8	1,200
Manuel of Citizenship.....	150	40	6,000
Canada—The Land we Come from.....	300	32	9,600
The Muskrat—A Canadian Fur Resource.....	150	32	4,800
Special Fishery Regulations for the Province of British Columbia (Office Consolidation).....	150	48	7,200
Tide Tables for the Pacific Coast of Canada, 1930.....	150	80	12,000
Regulations for the Loading and Carriage of Grain Cargoes.....	150	16	2,400
Tide Tables and Information connected with the Ship Channel from Father Point to Montreal, 1929.....	150	124	18,600
Core Drilling Bituminous Sands of Northern Alberta.....	150	32	4,800
Coal Mines in Canada (List No. 4).....	150	20	3,000
Manufacturers of Clay Products in Canada (List No. 6-3).....	150	12	1,800
Stone Quarry Operators in Canada (List No. 6-6).....	150	12	1,800
Sand and Gravel Deposits in Canada (List No. 6-5).....	150	12	1,800
Why You Should Insulate your Home.....	150	24	3,600
Annual Report of the Explosives Division of the Department of Mines, 1928.....	125	24	3,000
Condensed Preliminary Report on the Trade of Canada, 1929.....	350	128	44,800
Live Stock and Annual Products Statistics, 1928.....	150	112	16,800
Annual Statistics of Fruit and Floriculture, 1928.....	150	24	3,600
Dominion Grain Research Laboratory, Winnipeg, Man.—Second Annual Report, January 31, 1929.....	150	16	2,400
Annual Report on the Mineral Production of Canada, 1927.....	150	386	57,900
Manufactures of the Non-Ferrous Metals in Canada, 1927.....	1,000	74	74,000
Manufactures of the Non-Metallic Minerals in Canada, 1927.....	150	128	19,200
Annual Report of the Board of Grain Commissioners for Canada, for the Crop Year ended August 31, 1928.....	285	44	12,540
Why and How to Use Milk (Pamphlet No. 36—New Series).....	25,000	32	800,000
The Root Vegetables Act and Regulations—Acts, Orders and Regulations (No. 28).....	150	32	4,800
Carried forward.....	8,191,805	73,399	309,160,718

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,191,805	73,399	309,160,718
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Regulations made under the provisions of the Live Stock and Live Stock Products Act, respecting the Grading and Marking of Eggs.....	150	16	2,400
Anthrax (Bulletin No. 120—New Series).....	150	16	2,400
Hand-book on the Bacon Hog and Hog Grading (Pamphlet No. 40—New Series).....	150	24	3,600
Rabbits (Bulletin No. 28—New Series).....	150	32	4,800
Canadian Grown Apples—Delight in every bite.....	150	24	3,600
Methods of Protection from Mosquitoes, Black-Flies and Similar Pests in the Forest (Pamphlet No. 55—New Series).....	2,000	16	32,000
Egg Grading Report—The Individual Graded Return (Pamphlet No. 70).....	150	12	1,800
Dressing and Cutting Lamb Carcasses (Pamphlet No. 8—New Series).....	150	32	4,800
Hog Marking (Pamphlet No. 88—New Series).....	150	8	1,200
Advice to the Beginner in the Selection of Breeding Stock.....	150	16	2,400
Contributions to Canadian Palæontology (Bulletin No. 54).....	150	102	15,300
Banff, Kootenay and Yoho National Parks—General Information.....	150	16	2,400
A Popular Account of the Fishes of Canada from the Lampreys and Hogfishes to the Viper Fishes inclusive.....	350	40	14,000
The Carillon, Peace Tower, Ottawa, Canada—Programmes of Summer Recitals, 1929.....	500	24	12,000
Milling Plants in Canada (List No. 1-2).....	150	8	1,200
The Highway and the Motor Vehicle in Canada, 1928.....	150	36	5,400
The Board of Railway Commissioners for Canada—Judgments, Orders, Regulations and Rulings.....	1,200	48	*22,400
Catalogue of Official Publications of the Parliament and Government of Canada—Cumulative Supplement, April 1-June 30, 1929.....	500	16	8,000
Alphabetical List of Employees, July 1, 1929.....	75	40	3,000
Core Drilling Bituminous Sands of Northern Alberta.....	200	32	6,400
Catalogue of Official Publications of the Parliament and Government of Canada, Supplement, May, 1929.....	400	8	3,200
Department of National Revenue, Canada, Excise Division—Regulations.....	500	16	8,000
An Act respecting Investment Companies.....	500	88	44,000
An Act to incorporate The Ukrainian Greek Orthodox Church of Canada.....	1,000	16	16,000
Senators of Canada, according to Seniority, April, 1929.....	100	20	2,000
Catalogue of Official Publications of the Parliament and Government of Canada, April, 1929.....	2,000	68	136,000
Report on Civil Aviation and Civil Government Air Operations, 1928.....	200	120	24,000
Report on Railway Terminal Facilities at Montreal, January, 1929.....	300	30	9,000
Canadian Battlefields Memorials.....	200	84	16,800
Hydrometer Tables.....	150	160	24,000
Rules and regulations and Forms (Patent Office of Canada), effective September 1, 1923.....	150	32	4,800
Sanitary Kitchen Tables—Veteraft.....	150	16	2,400
Microbiological Studies of Honey (Bulletin No. 116—New Series).....	150	48	7,200
An Examination of Cinchona and its Commercial Preparations.....	150	16	2,400
Precise Levelling in Quebec—North of St. Lawrence River (Publication No. 18).....	150	82	12,300
Precise Levelling in Quebec—South of St. Lawrence River (Publication No. 17).....	150	58	8,700
Report on Various Proposed Railway Routes for a Western Outlet to the Pacific from the Peace River District.....	1,150	38	43,700
Land Settlement—Seventh Report of the Soldier Settlement Board of Canada, December 31, 1928.....	150	32	4,800
Budget Speech, March 1, 1929.....	150	32	4,800
Report on Railway Terminal Facilities at Montreal, January, 1929.....	150	32	4,800
Index to Vol. XVIII—Judgments, Orders, etc.....	650	32	20,800
Carried forward.....	8,207,080	74,985	309,709,518

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,207,080	74,985	309,709,518
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Regulations governing the Granting of Yearly Licences and Permits to Cut Timber on Dominion Lands in Manitoba, Saskatchewan, etc.....	200	32	6,400
Civil Service Regulations.....	650	32	20,800
Sockeye Salmon Fisheries.....	200	8	1,600
International Sanitary Convention (Treaty Series 1928, No. 2)....	350	112	39,200
Estimates of Canada, Supplementary, 1929-30.....	625	18	11,250
The Board of Railway Commissioners for Canada—General Order No. 473.....	150	16	2,400
Convention between His Majesty and the President of the United Mexican States (Treaty Series, 1928, No. 1.).....	350	12	4,200
International Convention for the Protection of Industrial Property (Treaty Series, 1928, No. 3).....	575	64	*18,400
Herbaceous Perennials with Lists of Varieties for Special Purposes and Districts (Bulletin No. 113—New Series).....	125	72	9,000
Report of the Dominion Field Husbandman, 1928.....	150	48	7,200
The Migratory Birds Convention Act and Federal Regulations for the Protection of Migratory Birds, September 1, 1929.....	150	36	5,400
Abstract of Statements of Loan and Trust Companies in Canada, 1928.....	250	24	6,000
Statistical Report of Fire Losses in Canada, 1928.....	150	8	1,200
Yukon—Land of the Klondike.....	150	48	7,200
Fisheries News Bulletin.....	150	8	1,200
Report of the Royal Commission on the Transfer of the Natural Resources of Manitoba.....	400	48	19,200
How Appointments are Made in the Public Service of Canada.....	150	8	1,200
An Act respecting Railways.....	1,000	196	196,000
The Issue and Redemption of Currency, June 1, 1929.....	150	8	1,200
Comparison of the Cost and Convenience of House Heating with Various Fuels.....	150	12	1,800
Convention of Commerce between Canada and Czechoslovakia (Treaty Series, 1928, No. 6).....	150	8	1,200
Rickets: Prevention and Cure (National Health, Publication No. 43).....	125	20	2,500
Experimental Substations: Fort Vermilion, Alta., Fort Smith, N.W.T., Fort Resolution, N.W.T., Fort Providence, N.W.T., Salmon Arm, B.C., Betsiamites, P.Q., Fort Good Hope, N.W.T.—Report of the Experimentalists in Charge, 1927 and 1928.....	150	40	6,000
Experimental Farm, Nappan, N.S.—Report of the Superintendent, 1928.....	150	76	11,400
Late Blight and Rot of Potatoes (Bulletin No. 119—New Series)...	150	20	3,000
Report of the Dominion Agricultural Bacteriologist, 1927 and 1928.....	150	36	5,400
Corn Growing in Manitoba (Bulletin No. 121—New Series).....	150	16	2,400
Iron and Steel and their Products in Canada, 1927.....	150	160	24,000
Switzerland as a market.....	150	52	7,800
Investigations in Ceramics and Road Materials, 1927.....	150	82	12,300
Preliminary Report on Woman River and Ridout Map-Areas, Sudbury District, Ontario (Memoir 157).....	150	30	4,500
Through the Heart of the Rockies and Selkirks (Fourth Edition)...	150	122	18,300
Catalogue of Official Publications of the Parliament and Government of Canada (Cumulative Supplementary, April 1-July 31, 1929).....	500	18	9,000
Index to the <i>Canada Gazette</i> , 1928-29.....	125	104	13,000
Fruit and Vegetables—Canning, Drying, Storing.....	150	32	4,800
Experimental Station, Charlottetown, P.E.I.—Report of the Superintendent, 1928.....	150	56	8,400
Canada Year Book, 1929.....	125	1,106	138,250
National Museum of Canada—Annual Report for 1927 (Bulletin No. 56).....	150	116	17,400
Gold Fields of Nova Scotia (Memoir 156).....	150	300	45,000
Natural Gas and Petroleum Wells (List No. 5.).....	150	20	3,000
Carried forward.....	8,216,430	78,233	310,408,018

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,216,430	78,233	310,408,018
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Origin, Birthplace, Nationality and Language of the Canadian People (A Census Study Based on the Census of 1921 and Supplementary date).....	350	224	78,400
Precise Levelling in Ontario—North of Parry Sound (Publication No. 20).....	150	84	12,600
How to Caponize (Pamphlet No. 12—New Series).....	150	8	1,200
Report of the Veterinary Director General, 1928-29.....	150	56	8,400
Elk Island National Park.....	150	8	1,200
Official List of Radio stations of Canada, 1929 Edition (Supplement No. 2).....	150	32	4,800
Canada's Forests.....	150	48	7,200
Precise Levelling in Manitoba (Pamphlet No. 21).....	150	56	8,400
Comparative Tests of Various Fuels when Burned in a Domestic Hot-Water Boiler.....	205	104	26,000
Catalogue of Official Publications of the Parliament and Government of Canada (Cumulative Supplement, April 1–September 15, 1929).....	500	24	12,000
Report on the Mineral Production of Canada—Six Months ending June, 1929.....	150	24	3,600
Humidity in House Heating—The cause and Control of Air Dryness in House Heating.....	150	48	7,200
Preserving Fruits and Vegetables in the Home (Bulletin No. 77—New Series).....	150	56	8,400
Points for Exporters to South Africa.....	150	20	3,000
Register of Fully Accredited Herds arranged by Breeds as recorded to September 30, 1929.....	150	40	6,000
Satin Moth in British Columbia (Pamphlet No. 50—New Series).....	150	16	2,400
Testing the Producer's Milk for Quality (Bulletin No. 123—New Series).....	150	16	2,400
Experimental Station, Fredericton, N.B.—Report of the Superintendent, 1928.....	150	64	9,600
International Slavery Convention, Signed at Geneva, September 25, 1926.....	350	12	4,200
Arctic and western Bay Drainage in Alberta, Saskatchewan, Manitoba and Western Ontario, Climatic Year 1926-27 (Water Resources Paper No. 67).....	150	224	33,600
The Immigration Act and Regulations.....	1,150	52	59,800
Vocational Education.....	150	48	7,200
Eighteenth Annual Report on Labour Organization in Canada, 1928.....	150	256	38,400
Publications of the Natural Intelligence Service.....	150	24	3,600
Poultry Culling in New Brunswick.....	150	20	3,000
Close-Grazing (Bulletin No. 122—New Series).....	150	8	1,200
Experimental Station, Cap Rouge, P.Q.—Report of the Superintendent, 1928.....	150	52	7,800
Points for Exporters to Japan.....	250	16	*2,000
Report of the Superintendent of Insurance of the Dominion of Canada, 1928 (Vol. I).....	325	1,548	503,100
Annual Report of the Director of the Geodetic Survey of Canada, 1927-28.....	150	32	4,800
Summary Report, 1928, Part B (Geological Survey).....	150	138	20,700
The Geological Story of Jasper Park, Canada.....	150	52	7,800
Report of the Division of Forage Plants, 1928.....	150	32	4,800
Britannia Beach Map area, British Columbia (Memoir 153).....	150	148	22,200
Anthropometry of the Cree and Saulteaux Indians in Northern Manitoba (Bulletin No. 59).....	150	92	13,800
The Fruit Act and Regulations—Acts, Orders and Regulations (No. 7).....	150	52	7,800
Geological Survey—Summary Report, 1928—Part A.....	150	212	31,800
Small-Pox and Vaccination—A Popular Treatise (National Health, Publication No. 32).....	150	32	4,800
Informations for Settlers, Canada.....	150	8	1,200
Some Shell-heaps in Nova Scotia (Bulletin No. 47.).....	150	194	29,100
Carried forward.....	8,224,510	82,389	311,423,518

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,224,510	82,389	311,423,518
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Experimental Station, Ste. Anne de la Pocatière, P.Q.—Report of the Superintendent, 1928.....	150	72	10,800
Second Annual Report on Co-operative Associations in Canada, 1929.....	250	84	21,000
Statistics of the Haddock Fishery in North American Waters.....	150	16	2,400
Examinations for Clerks, Stenographers and Typists (Civil Service Commission).....	150	8	1,200
The Bankruptcy Act together with Rules and Forms thereunder.....	1,000	214	214,000
An Act for the purpose of establishing in Canada a System of Long Term Mortgage Credit for Farmers.....	1,000	12	12,000
Convention signed at Washington, March 2, 1899, between Her Majesty and the United States of America relative to the Disposal of Real and Personal Property, etc.....	300	8	2,400
An Act respecting Companies.....	500	80	40,000
An Act to permit the temporary Importation, Manufacture and Sale of Oleomargarine in Canada.....	200	8	1,600
Regulations for the Loading and Carriage of Grain Cargoes.....	500	16	8,000
Points for Exporters to South Africa.....	100	20	2,000
The Testing on Non-bituminous Road Materials.....	150	16	2,400
Coal Statistics for Canada, 1928.....	150	96	14,400
Report on the Grain Trade of Canada, 1928.....	350	208	72,800
International Convention relating to Dangerous Drugs (Treaty Series, 1928, No. 4).....	350	24	8,400
Information for Parents—Teaching for Sex Hygiene to Children (National Health, Publication No. 26).....	150	8	1,200
Experimental Station, La Ferme, P.Q.—Report of the Superintendent, 1928.....	150	56	8,400
Experimental Station, Kapuskasing, Ont.—Report of the Superintendent, 1928.....	150	64	9,600
List of Publications including Reports, Bulletins, Press Releases, etc.....	150	16	2,400
The Feeding Stuffs Act with Amendments and Regulations—Acts, Orders and Regulations (No. 10).....	150	26	3,900
Examinations for Junior Trade Commissioners in the Commercial Intelligence Service.....	150	12	1,800
Reindeer Grazing in Northwest Canada.....	250	48	12,000
Gold Mines in Canada (List No. 2-1).....	150	8	1,200
The Pension Act (Office Consolidation).....	650	40	26,000
The Canada Grain Act (Office Consolidation).....	350	88	30,800
Industrial Fuel and Power Statistics for Ontario, 1925.....	150	32	4,800
Report of the Superintendent of Insurance of the Dominion of Canada, 1929.....	325	1,252	406,900
Investigations of Fuels and Fuel Testing, 1927.....	150	126	18,900
Exchange of Notes—The Agreement with the United States of America, etc. (Treaty Series, 1928, No. 9).....	350	8	2,800
National Museum of Canada—Annual Report for 1928 (Bulletin No. 62).....	150	40	6,000
Notification Extending to Canada—The Convention between His Majesty and Estonia (Treaty Series, 1928, No. 10).....	350	8	2,800
Notification Extending to Canada—The Treaty between His Majesty and Lithuania (Treaty Series, 1928, No. 11).....	350	12	4,200
Mesozoic Palaeontology of Blairmore Region, Alberta (Bulletin No. 58).....	150	146	21,900
Food Products, Beverages, Rubber, Tobacco and Miscellaneous Manufactures based on Vegetable Products, 1917-27.....	150	224	33,600
Labour Legislation in Canada, 1928.....	150	740	111,000
The Canadian Navy List for November, 1929 (Corrected to October 31, 1929).....	150	40	6,000
The Feeding Stuffs Act with Amendments and Regulations—Acts, Orders and Regulations No. 10 (Office Consolidation).....	200	26	5,200
The Canadian Navy List for November, 1929 (Corrected to October 31, 1929).....	100	40	4,000
Boys' Cattle Breeding Club Policy, 1929.....	150	32	4,800
Carried forward.....	8,234,985	86,363	312,567,118

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,234,985	86,363	312,567,118
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Information for Young Women about Sex Hygiene (National Health, Publication No. 25).....	150	8	1,200
Information for Men—Syphilis and Gonorrhoea (National Health, Publication No. 24).....	150	8	1,200
Report of the Superintendent of Insurance of the Dominion of Canada, 1928—Loan and Trust Companies.....	250	186	46,500
Catalogue of Official Publications of the Parliament and Government of Canada, April 1–November 15, 1929.....	700	24	16,800
Report of the Director of Forestry, 1927-28.....	150	66	9,900
Notification Extending to Canada, the Treaty between His Majesty and the Latvian Republic for the Extradition of Fugitive Criminals, (Treaty Series, 1928, No. 12).....	350	8	2,800
Notification Extending to Canada, the Treaty between His Majesty and Albania for the Extradition of Criminals (Treaty Series, 1928, No. 14).....	350	16	5,600
Notification effected by an Exchange of Notes extending to Canada, the Convention between His Majesty and France respecting Legal Proceedings in Civil and Commercial Matters (Treaty Series, 1928, No. 15).....	350	16	5,600
Canadian Battlefield Memorials.....	450	168	*37,800
Old Age Pensions in Canada.....	150	112	16,800
Use of Irrigation Water on Farm Crops (Bulletin No. 125—New Series).....	150	52	7,800
Grading up the Dairy Cow by the Use of Pure-Bred Sires (Bulletin No. 126—New Series).....	150	36	5,400
A Colour Defect of Cheddar Cheese (Bulletin No. 128—New Series).....	150	24	3,600
The Pale Western Cutworm (Pamphlet No. 71—New Series).....	250	16	*2,400
Experimental Station, Summerland, B.C.—Report of the Superintendent, 1928.....	150	64	9,600
Notification Extending to Canada, the Treaty between His Majesty and Finland for the Extradition of Criminals (Treaty Series, 1928, No. 13).....	350	16	5,600
Canada, 1930—A hand-book of Present Conditions and Recent Progress in the Dominion of Canada.....	2,150	192	412,800
Experimental Station, Lethbridge, Alta.—Report of the Superintendent, 1928.....	150	68	10,200
Stain and Decay in Lumber—Seasoning Yards (Forest Service—Circular No. 27).....	350	32	*13,400
Index to the <i>Labour Gazette</i> , Vol. XXIX, 1929).....	150	36	5,400
Factum.....	250	180	45,000
The Preparation of Pelts for the Market.....	150	12	1,800
Historical Account of the Lobster Canning Industry.....	150	24	3,600
Investigation into the Amalgamated Builders' Council and related Organizations—Reports of Commissioners, October 31 and December 18, 1929.....	250	40	10,000
British Family Settlement in New Brunswick, Canada.....	250	36	9,000
Type Specimens.....	225	52	11,700
British North America Act and Amendments, 1867-1927.....	500	168	84,000
British North America Acts, 1867-1919 (Appendix).....	900	32	28,800
Pacific Drainage—British Columbia and Yukon Territory, Climatic Year 1926-27 (Water Resources Paper No. 59).....	150	242	36,300
Railway Fire Protection in Canada (Bulletin No. 4).....	150	24	3,600
Estimates of Canada, 1930-31.....	850	112	95,200
Unseen Hazards in Hospitals, Clinics and Other Institutions (Bulletin No. 1).....	150	64	9,600
Buttermaking on the Farm (Bulletin No. 57—New Series).....	150	12	1,800
List of Securities held by Insurance, Loan and Trust Companies, as at December 31, 1929.....	150	332	49,800
Regulations for the Disposal of Coal Mining Rights.....	250	16	4,000
Bovine Tuberculosis.....	150	8	1,200
List of Publications, 1930 (Agriculture).....	150	16	2,400
Carried forward.....	8,246,860	88,881	313,585,318

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,246,860	88,881	313,585,318
†Public Printing and Stationery—Continued			
ENGLISH—Continued			
Experimental Station, Kentville, N.S.—Report of the Superintendent, 1928.....	150	64	9,600
The Strawberry and its Cultivation in Canada (Bulletin No. 80—New Series).....	150	56	8,400
Board of Examiners for Dominion Land Surveyors—Examples of Descriptions.....	150	24	3,600
Prices in Canada and Other Countries, 1929.....	50	32	1,600
Wages and Hours of Labour in Canada, 1920 to 1929.....	150	104	15,600
The Arms of Canada, 1930 (Third Edition).....	400	16	6,400
Notification Extending to Canada, the Treaty between His Majesty and Czechoslovakia, for the Extradition of Criminals (Treaty Series, 1928, No. 8).....	350	16	5,600
Notification effected by an Exchange of Notes Extending to Canada, the Convention between His Majesty and the Czechoslovak Republic relative to Legal Proceedings in Civil and Commercial Matters (Treaty Series, 1928 No. 17).....	350	16	5,600
Regulations for the Issue of Oil and Gas Permits and Leases in the Northwest Territories of Canada, etc.....	250	16	4,000
Report of the Conference on the Operation of Dominion Legislation and Merchant Shipping Legislation, 1929.....	500	56	28,000
Prices and Price Indexes, 1913-1928.....	250	296	74,000
Canada's Fisheries.....	150	16	2,400
A Directory of the Hospitals of Canada with Maps, 1929.....	150	48	7,200
Precise Levelling in British Columbia (Publication No. 24).....	150	96	14,400
Annual Report of the Radio Branch, 1928-29.....	200	36	7,200
Report of the Dominion Poultry Husbandman, 1928.....	150	84	12,600
Precise Levelling in Saskatchewan (Publication No. 22).....	150	96	14,400
Precise Levelling in Alberta (Publication No. 23).....	150	80	12,000
Empire Tariff Preferences on Canadian Goods.....	150	36	5,400
Regulations respecting Game in the Northwest Territories.....	150	48	7,200
Exchange of Notes with the Spanish Government (Treaty Series, 1928, No. 7).....	350	48	16,800
Report of the Royal Commission on Technical and Professional Services, February, 1930.....	3,000	64	192,000
Experimental Station, Lacombe, Alta—Report of the Superintendent, 1928.....	150	80	12,000
Regulations for the Disposal of Petroleum and Natural Gas Rights Canada's Fisheries.....	150	36	5,400
Operation of Dominion Legislation and Merchant Shipping Legislation, 1929.....	200	16	3,200
Catalogue of Official Publications of the Parliament and Government of Canada (Cumulative Supplement, April 1, 1929-January 15, 1930).....	200	56	11,200
Regulations for the Disposal of Petroleum and Natural Gas Rights Historical Account of the Lobster Canning Industry.....	700	32	22,400
An Act respecting Shipping in Canada.....	200	36	7,200
An Act respecting the Inspection of Gas and Gas Meters.....	200	24	4,800
Report of the Dominion Cerealists, 1928.....	500	260	130,000
Package Bees and How to Install Them (Pamphlet No. 107—New Series).....	1,000	8	8,000
Natural Resources of Quebec.....	150	48	7,200
Banff, Kootenay and Yoho National Parks—General Information Preliminary Report on the Mineral Production of Canada, 1929.....	150	8	1,200
The Canadian Records of Performance for Pure-Bred Dairy Cattle—Regulations, Standards and Records of Cows Qualified for Registration (Report No. 21).....	150	132	19,800
Canada Official Postal Guide, 1930.....	250	16	4,000
Advisory Board on Tariff and Taxation—Record of Public Sitings The National Revenue Review, April 1929, to March, 1930.....	150	48	7,200
Monthly Bulletin of Agricultural Statistics, April, 1929, to January, 1930.....	150	144	21,600
Supplement to the Commercial Intelligence Journal.....	2,150	1,224	*1,315,800
	13,775	2,030	*1,269,750
	2,850	288	*68,400
	1,500	412	*61,800
	600	56	*8,400
Carried forward.....	8,279,535	95,183	317,028,668

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,279,535	95,183	317,028,668
†Public Printing and Stationery—Continued			
ENGLISH—Concluded			
Quarterly Report on Coal and Coke Statistics for Canada.....	675	64	*10,800
Bulletin of the Canadian Tuberculosis Association.....	300	16	*2,400
<i>The Labour Gazette</i>	1,575	1,482	*194,500
Seasonable Hints.....	1,250	144	*20,000
Monthly Supplement to Canadian Official Postal Guide, 1929-30...	17,400	132	*191,400
Quarterly Bulletin of Sea Fishery Statistics.....	450	48	*7,200
Printing of various Committee sittings.....	14,900	2,472	*624,400
Various Acts reprinted for stock.....	92,950	2,072	*1,869,670
Judgments, Orders, etc. (Railway Commission).....	18,050	532	*342,800
BILINGUAL			
Quarterly Report of the Trade of Canada, Months of October, November and December 1929, and Nine Months ending Dec- ember, 1928 and 1929—Rapport trimestriel du Commerce du Canada, mois d'octobre, novembre et décembre 1929, et neuf mois terminés avec décembre 1928 et 1929.....	150	410	61,500
Convention of Berne for the Protection of Literary and Artistic Works—Convention de Berne pour la protection des œuvres littéraires et artistiques.....	250	40	*5,000
Statistics of the Civil Service of Canada—Numbers Employed and Expenditures on Salaries by Department, March 31, 1928-29— Statistiques du Service Civil du Canada—Personnel et rému- nération par ministères, 31 mars 1928-29.....	250	112	*14,000
Vital Statistics, 1926, Sixth Annual Report—Statistiques vitales, 1926, sixième rapport annuel.....	200	1,280	*128,000
Preliminary Report—Vital Statistics of Canada, 1928—Rapport préliminaire—Statistiques vitales du Canada, 1928.....	150	20	3,000
Census of Industry, 1927, The Lumber Industry—Recensement in- dustriel, 1927, industrie du bois.....	175	88	15,400
Children in Gainful Occupations—Enfants dans des occupations rémunérées.....	150	88	13,200
Summary of Monthly Traffic Reports, 1928—Résumé des rapports mensuels sur transports commerciaux, 1928.....	150	164	24,600
Special Report on Contributory Causes of Death, 1926—Rapport spécial sur les causes contributoires de décès, 1926.....	150	176	26,400
Canal Statistics, 1928—Statistique des canaux, 1928.....	175	56	9,800
List of Shipping, 1928—Liste des navires, 1928.....	440	276	121,440
List of Senators and List of Members of the House of Commons— Liste des sénateurs et liste des membres de la Chambre des Communes, 1929.....	150	80	12,000
Abstract of Statement of Insurance Companies of Canada, 1928— Relevé des états des compagnies d'assurance au Canada, 1928.....	175	498	87,150
Census of Industry, 1927, Central Electric Stations in Canada— Recensement industriel, 1927, usines électriques centrales au Canada.....	150	64	9,600
Annual Report of Juvenile Delinquents, September 30, 1928—Rap- port annuel sur les jeunes délinquants, 30 septembre 1928.....	150	48	7,200
Quarterly Report of the Trade of Canada, Months of April, May and June, 1929, and Three Months ending June 1928 and 1929— Rapport trimestriel du Commerce du Canada, mois d'avril, mai et juin, 1929, et trois mois terminées avec juin 1928 et 1929.....	150	410	61,500
Abstracts of Current Public Health Literature—Extraits de publica- tions courantes sur la santé publique, March, 1929, to March, 1930	1,950	744	*111,600
Monthly Review of Business Statistics—Revue de la situation économique.....	1,800	404	*60,600
Report of the Royal Commission on Radio Broadcasting—Rapport de la commission royale de la radiodiffusion.....	1,150	64	73,600
Statistics of Electric Railways of Canada, 1928—Statistique des tramways électriques du Canada, 1928.....	175	64	11,200
International Conference Safety of Life at Sea, 1929—Conférence in- ternationale pour la sauvegarde de la vie humaine en mer, 1929..	450	100	45,000
Carried forward.....	8,435,625	107,331	321,193,628

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,435,625	107,331	321,193,628
†Public Printing and Stationery—Continued			
BILINGUAL—Concluded			
Quarterly Report of the Trade of Canada, Months of July, August and September 1929, and Six Months ending September 1928 and 1929—Rapport trimestriel du Commerce du Canada, mois de juillet, août et septembre, 1929, et six mois terminés avec septembre 1928 et 1929.....	150	410	61,500
Fisheries Statistics of Canada, 1928—Statistique des pêcheries du Canada, 1928.....	350	664	*116,200
Fifty-Third Annual Report of Statistics of Criminal and Other Offences for the Year ended September 30, 1928—Cinquante-troisième rapport annuel sur la statistique de la criminalité pour l'année expirée le 30 septembre 1928.....	249	348	86,652
Fertilizer Analyses, 1928-29—Analyses d'engrais chimiques, 1928-29 Supplement No. 3 to Official List—Radio Stations of Canada (1929 Edition), September 1, 1929—Supplément n° 3 à la liste officielle des stations de radio du Canada (édition pour 1929), 1er septembre 1929.....	150	136	20,400
Statistics of Steam Railways of Canada, 1928—Statistique des chemins de fer du Canada, 1928.....	150	20	3,000
The Textile Industries of Canada, 1927—Les industries textiles du Canada, 1927.....	250	192	48,000
Special Report on Order of Birth of Children Born in 1925—Rapport spécial sur ordre de naissance des enfants nés en 1925.....	250	192	48,000
Supplement No. 4 to Official List of Radio Stations of Canada (1929 Edition), November 1, 1929—Supplément n° 4 à la liste officielle des stations de radio du Canada (édition pour 1929), 1er novembre 1929.....	150	48	7,200
St. Lawrence and Southern Hudson Bay Drainage, Ontario and Quebec, Climatic Years 1925-26 and 1926-27 (Water Resources Paper No. 58)—Bassins du St-Laurent et de la Baie d'Hudson Sud, l'Ontario et le Québec, années climatologiques 1925-26 et 1926-27 (ressources hydrauliques, bulletin n° 58).....	150	16	2,400
Statistics of Dairy Factories, 1928—Statistique de l'industrie laitière, 1928.....	150	392	58,800
Auditor General's Report—Rapport de l'Auditeur général, 1928-29—	200	104	20,800
Part A—Agriculture Department.....	40	64	2,560
Part B—Archives Department.....	100	6	600
Part C—Auditor General's Office.....	10	6	60
Part D—Civil Service Commission.....	10	6	60
Part E—External Affairs Department.....	15	10	150
Part F—Finance Department.....	10	24	240
Part G—Governor General's Secretary Office.....	10	4	40
Part H—Immigration and Colonization Department.....	50	40	2,000
Part I—Indian Affairs Department.....	350	126	*44,200
Part J—Insurance Department.....	10	6	60
Part K—Interior Department.....	25	84	2,100
Part L—Justice Department.....	15	26	390
Part M—Labour Department.....	15	12	180
Part N—Legislation.....	10	18	180
Part O—Marine and Fisheries Department.....	75	78	5,850
Part P—Mines Department.....	25	18	450
Part Q—National Defence Department.....	50	70	3,500
Part R—National Revenue Department.....	50	144	7,200
Part S—Post Office Department.....	75	172	12,900
Part T—Public Printing and Stationery Department.....	25	16	400
Part U—Privy Council Office.....	10	4	40
Part V—Public Works Department.....	75	154	11,550
Part W—Railways and Canals Department.....	25	82	2,050
Part X—Royal Canadian Mounted Police.....	10	32	320
Part Y—Secretary of State Department.....	15	8	120
Part Z—Soldier Settlement Board.....	10	16	160
Part RR—Pensions and National Health Department.....	40	54	2,160
Part ZZ—Trade and Commerce Department.....	25	40	1,000
Carried forward.....	8,439,004	111,173	321,767,100

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,439,004	111,173	321,767,100
†Public Printing and Stationery—Continued			
FRENCH			
Station expérimentale, Morden, Man.—Rapport du régisseur, 1928..	50	80	4,000
L'humidité dans les maisons chauffées.....	50	52	2,600
Annuaire du Canada, 1928-29.....	50	1,124	56,200
Budget du Canada, 1930-31.....	100	112	11,200
Rapport annuel du service de la radio, 1928-29.....	50	40	2,000
Géologie et minéraux industriels du Canada.....	50	284	14,200
Aperçu annuel sur l'éducation au Canada, 1927.....	50	176	8,800
Fleurs vivaces de pleine terre et liste de variétés pour certains districts et pour certaines fins (bulletin n° 113—nouvelle série)....	50	80	4,000
Sept années d'expérience avec la moissonneuse-batteuse combinée (Combine), 1922-28, sur la station expérimentale fédérale, Swift-Current, Sask. (bulletin n° 118—nouvelle série).....	50	32	1,600
Musée National du Canada—Rapport annuel, 1926 (bulletin n° 50)....	50	80	4,000
Rapport de la conférence sur l'application des lois des Dominions et de la législation relative à la marine marchande, 1929.....	250	64	16,000
Station expérimentale, La Ferme, P.Q.—Rapport du régisseur, 1928	50	56	2,800
Spécimens de questionnaire d'examen.....	1,000	48	48,000
Actes de l'Amérique Britannique du Nord, 1867-1919—Annexe.....	400	32	12,800
Rapport sommaire, 1926—Partie E (Mines).....	50	84	4,200
Système de notes pour l'élevage des volailles (bulletin n° 103—nouvelle série).....	50	24	1,200
Station expérimentale, Ste-Anne de la Pocatière, P.Q.—Rapport du régisseur, 1927.....	50	80	4,000
La rouille de la tige dans l'Ouest du Canada—Études sur les maladies des céréales (bulletin n° 106—nouvelle série).....	50	36	1,800
Station expérimentale, Lacombe, Alta.—Rapport du régisseur, 1927.	50	84	4,200
Station expérimentale, Kapuskasing, Ont.—Rapport du régisseur, 1927.....	50	80	4,000
Pois—Descriptions-types de légumes (bulletin n° 107—nouvelle série).....	50	52	2,600
Sous-station expérimentale, Beaverlodge, Alta.—Rapport du régisseur, 1927.....	50	70	3,500
Règlements établis par arrêté ministériel, le 2 juillet 1929, sous l'empire des dispositions de la loi de l'opium et des drogues narcotiques.....	50	8	400
L'élevage du renard au Canada (bulletin n° 12—nouvelle série).....	50	48	2,400
Ministère du Revenu National du Canada, Service de l'Accise—Règlements.....	50	16	800
Loi des douanes avec Index et la Loi du ministère du Revenu National (codification à l'usage des bureaux).....	50	100	5,000
Station expérimentale, Kentville, N.-E.—Rapport du régisseur, 1927.....	50	64	3,200
Station expérimentale, La Ferme, P.Q.—Rapport du régisseur, 1926 et 1927.....	50	72	3,600
La maladie jaune de la jacinthe (feuille n° 104—nouvelle série)....	50	8	400
Maladie de la jambe noir—Études sur les maladies des pommes de terre (bulletin n° 105—nouvelle série).....	50	16	800
Le lapin (bulletin n° 28—nouvelle série).....	50	32	1,600
Loi concernant l'industrie laitière et règlements—Lois, arrêtés et règlements (n° 26).....	50	48	2,400
La viande d'agneau—Choix des morceaux et façon de les apprêter.	125	12	1,500
La solidité des boîtes de beurre et du fromage renforcées et non renforcées (service forestier—circulaire n° 24).....	50	8	400
Règlements de pêche particuliers à la province de Québec (codification administrative).....	50	48	2,400
Règlements de pêche particuliers à la province du Nouveau-Brunswick (codification administrative).....	50	52	2,600
Règlements concernant les engins de sauvetage.....	50	52	2,600
Loi d'inspection du pétrole et du naphth.....	50	24	1,200
Deuxième rapport des travaux de la Commission fédérale du combustible, 1923-1928.....	50	64	3,200
Rapport préliminaire sur la production minérale du Canada, 1928..	50	40	2,000
Carried forward.....	8,442,629	114,655	322,017,300

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,442,629	114,655	322,017,300
†Public Printing and Stationery—Continued			
FRENCH—Continued			
La fièvre charbonneuse (bulletin n° 120—nouvelle série).....	50	16	800
Le traitement de la crème pour la fabrication du beurre (feuilleton n° 37—nouvelle série).....	50	12	600
La neutralisation de la crème pour la fabrication du beurre (feuilleton n° 52—nouvelle série).....	50	8	400
La sélection des sujets reproducteurs—Conseils aux débutants.....	50	16	800
Le Carillon, tour de la Paix, Ottawa, Canada—Programmes des récitals de l'été 1929.....	150	24	3,600
Catalogue de publications officielles du parlement et du gouvernement du Canada, avril 1929.....	400	40	16,000
Rapport sur les facilités ferroviaires de terminus à Montréal, janvier 1929.....	150	64	*4,800
Préparez-vous à prévenir la paralysie infantile (santé nationale, publication n° 51).....	50	16	800
Exposé du budget, 1er mars 1929.....	50	32	1,600
Convention sanitaire internationale (recueil des traités, 1928, n° 2)	100	64	6,400
Spécimens de questionnaires d'examens.....	350	48	16,800
Budget du Canada, supplémentaire, 1929-30.....	100	18	1,800
Convention entre Sa Majesté et le Président des Etats-Unis du Mexique (recueil des traités, 1928, n° 1).....	205	16	*1,640
Commission consultative du tarif et de l'impôt—Compte rendu des audiences publiques.....	2,850	2,082	*793,000
Les oiseaux—Richesse nationale.....	50	20	1,000
La Revue du Revenu National, avril 1929 à avril 1930.....	600	288	*14,400
Bulletin des renseignements sur les pêcheries.....	50	8	400
Convention internationale relative à l'esclavage (recueil des traités, 1928, n° 5).....	100	12	1,200
Loi de la convention concernant les oiseaux migrateurs et règlements fédéraux pour la protection des oiseaux migrateurs, 1er septembre 1929.....	50	40	2,000
Règlements concernant l'usage et la gestion des quais de l'Etat au Canada et tarif des péages et droits exigibles à ces quais.....	50	24	1,200
Convention de commerce entre le Canada et la Tchécoslovaquie (recueil des traités, 1928, n° 6).....	50	8	400
Convention internationale concernant les drogues nuisibles (recueil des traités, 1928, n° 4).....	50	24	1,200
La fabrication de la crème à la glace (bulletin n° 102—nouvelle série).....	50	32	1,600
Le porc à bacon et le classement des pores—Manuel de l'éleveur (feuilleton n° 40—nouvelle série).....	50	24	1,200
Pensions et problèmes des anciens combattants—Rapports, délibérations et témoignages du Comité spécial des pensions, etc., 17 février au 30 avril 1928.....	110	692	76,120
Rapport sur l'aviation civile et les opérations aériennes du gouvernement civil, 1928.....	150	124	18,600
Rapport de la commission royale sur le transport des ressources naturelles du Manitoba.....	100	48	4,800
Catalogue de publications officielles du parlement et du gouvernement du Canada (Supplément cumulatif, 1er avril-31 juillet 1929).....	200	16	3,200
Pommes cultivées au Canada—Chaque bouchée est un régal.....	50	24	1,200
Bulletin mensuel de la statistique agricole, juin 1929 à janvier 1930	400	336	*16,800
L'essai du lait, de la crème et des sous-produits du lait au moyen du procédé Babcock (bulletin n° 14—nouvelle série).....	50	48	2,400
La loi des plantes-racines potagères et règlements—Lois, arrêtés et règlements (n° 28).....	50	32	1,600
Service de la production de la filasse industrielle—Rapport du chef de service, 1927.....	50	16	800
La conversion des fourrages secs en un aliment succulent—Une étude du procédé "Sugar Jack" (bulletin n° 96—nouvelle série)	50	40	2,000
Rapport annuel de la division des explosifs du ministère des Mines, 1928.....	50	24	1,200
Carried forward.....	8,449,594	118,991	323,019,660

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,449,594	118,991	323,019,660
†Public Printing and Stationery—Continued			
FRENCH—Continued			
Rapport du céréaliste du Dominion, 1927.....	50	40	2,000
La maladie de la pomme de terre (bulletin n° 119—nouvelle série).....	50	16	800
Bulletin de l'Association Canadienne Antituberculeuse.....	150	24	*1,200
La Gazette du Travail, Nos. 3 to 12, Vol. XXIX and Nos. 1 and 2, Vol. XXX.....	600	1,516	*75,800
Conseils pour la saison.....	350	112	*5,600
Supplément mensuel au guide officiel du service postal, 1929-30.....	1,200	100	*10,000
Règlements établis sous l'empire de la Loi des aliments et drogues par arrêté ministériel du 6 février 1928.....	50	116	5,800
Station expérimentale, Cap Rouge, P.Q.—Rapport du régisseur, 1927.....	50	96	4,800
Le contrôle de la ponte du Canada pour les volailles de race pure, 1927-28 (rapport n° 9).....	50	106	5,300
Station expérimentale, Farnham, P.Q.—Rapport du régisseur, 1928.....	50	20	1,000
Rapport de l'horticulteur du Dominion, 1927.....	50	52	2,600
Règlements du Service Civil, Canada.....	550	64	*3,200
Station d'élevage de renards, Summerside, I.P.-E.—Rapport du régisseur, 1926 et 1927.....	50	64	3,200
Concours de ponte nationaux canadiens—Rapport pour les sixième, septième et huitième années (bulletin n° 108—nouvelle série).....	50	144	7,200
La préparation des produits de la basse-cour pour la vente (bulletin n° 20).....	50	32	1,600
Comment chaponner (feuilleton n° 12—nouvelle série).....	50	8	400
Ferme expérimentale, Brandon, Man.—Rapport du régisseur, 1928.....	50	64	3,200
Notification concernant l'extension au Canada à compter du 18 septembre 1928 des dispositions de la convention entre Sa Majesté et l'Estonie (recueil des traités, 1928, n° 10).....	125	12	1,500
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la Lithuanie.....	125	12	1,500
Rapport sommaire, 1927, partie C (Commission géologique).....	50	56	2,800
Loi relative à l'inspection des poissons, etc.....	50	24	1,200
Catalogue de publications officielles du parlement et du gouvernement du Canada, 1er avril-31 octobre 1929.....	200	16	3,200
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la Tchécoslovaquie pour l'extradition des criminels (recueil des traités, 1928, n° 8).....	125	10	1,250
Echange de Notes comportant un accord avec les Etats-Unis d'Amérique relatif à l'exemption réciproque de l'impôt sur le revenu en ce qui concerne les bénéfices provenant des opérations d'armement maritime (recueil des traités, 1928, n° 9).....	125	8	1,000
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la République Lettone pour l'extradition des criminels (recueil des traités, 1928, n° 12).....	125	12	1,500
Notification concernant l'extension au Canada des dispositions du traité entre Sa Majesté et la Finlande pour l'extradition des criminels (recueil des traités, 1928, n° 13).....	100	12	1,200
La loi des aliments du bétail avec amendements et règlements—Lois, arrêtés et règlements, n° 10 (consolidation du bureau).....	50	28	1,400
Le rachitisme: Prévention et guérison (santé nationale, publication n° 43).....	50	24	1,200
Rapport du botaniste du Dominion, 1927.....	50	260	13,000
Station expérimentale, Charlottetown, I.P.-E.—Rapport du régisseur, 1928.....	50	64	6,200
Fermes expérimentales fédérales—Rapport du service des plantes fourragères, 1927.....	50	46	2,300
Rapport de l'apiculteur du Dominion, 1928.....	50	32	1,600
Station expérimentale, Ste-Anne de la Pocatière, P.Q.—Rapport du régisseur, 1928.....	50	80	4,000
Maladies charbonneuses des plantes cultivées—Causes et remèdes (bulletin n° 81—nouvelle série).....	50	80	4,000
La préparation des peaux pour le commerce.....	50	12	600
Catalogue de publications officielles du parlement et du gouvernement du Canada (supplément cumulatif, 1er avril-30 novembre 1929).....	250	16	4,000
Carried forward.....	8,454,769	122,369	323,206,810

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Continued*

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,454,769	122,369	323,206,810
†Public Printing and Stationery—Concluded			
FRENCH—Concluded			
Liste des publications, 1930 (Agriculture).....	50	16	800
Rapport du chimiste du Dominion, 1927-28.....	50	96	4,800
Le framboisier et sa culture au Canada (bulletin n° 114).....	50	32	1,600
Cercles de jeunes éleveurs de bétail, 1929.....	50	32	1,600
Rapport du Directeur général vétérinaire, 1928-29.....	100	58	5,800
Deuxième rapport annuel sur les Sociétés Co-opératives au Canada, 1929.....	50	84	4,200
Notification effectuée par un échange de notes concernant l'exten- sion au Canada de la convention entre Sa Majesté et la répu- blique Tchécoslovaque au sujet des actes de procédures en matières civile et commerciale (recueil des traités, 1928, n° 17)	125	12	1,500
Prix au Canada et à l'étranger, 1929.....	50	32	1,600
Huitième rapport sur l'organisation de l'industrie du commerce et des professions libérales au Canada, 1929.....	100	132	13,200
La sélection des volailles au Nouveau-Brunswick.....	50	20	1,000
Station expérimentale, Lennoxville, P.Q.—Rapport du régisseur, 1928.....	50	72	3,600
La culture du blé d'Inde au Manitoba (bulletin n° 121—nouvelle série).....	50	16	800
L'essai de la qualité du lait au sortir de la ferme (bulletin n° 123— nouvelle série).....	50	20	1,000
Service de l'exploitation animale—Rapport de l'éleveur du Domi- nion, 1927-28.....	50	56	2,800
Canada, 1930—Un manuel des conditions actuelles et des progrès récents de la Puissance.....	1,550	188	291,400
Rapport du service des plantes fourragères, 1928.....	50	32	1,600
Echange de Notes avec le gouvernement espagnol (recueil des traités, 1928, n° 7).....	125	24	3,000
Salaires et heures de travail au Canada, 1920 à 1929.....	50	108	5,400
Deuxième rapport annuel sur les Société Co-opératives au Canada, 1929.....	100	84	8,400
Actes de l'Amérique Britannique du Nord et ses modifications, 1867-1927.....	200	176	35,200
Guide officiel du service postal canadien, 1930.....	125	1,240	*79,000
Public Works—			
ENGLISH			
The Carillon, Peace Tower, Ottawa, Canada—Programmes of Summer Recitals, 1929.....	970	48	*23,280
Dominion Government Telegraph and Telephone Service—List of Telephone Subscribers on Exchanges at Brisco, Golden, Inver- mere, etc., January 1, 1929.....	360	16	5,760
FRENCH			
Le Carillon, tour de la Paix, Ottawa, Canada—Programmes des récitais de l'été, 1929.....	200	24	4,800
Railways and Canals—			
ENGLISH			
Report on Various Proposed Railway Routes for a Western Outlet to the Pacific from the Peace River District.....	250	38	9,500
Report on Railway Terminal Facilities at Montreal, January, 1929.....	1,000	32	32,000
FRENCH			
Rapport sur les facilités ferroviaires de terminus à Montréal, janvier 1929.....	1,000	32	32,000
Carried forward.....	8,461,624	125,089	323,782,450

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,461,624	125,089	323,782,450
<i>Railway Commission—</i>			
ENGLISH			
Index to Vol. XVIII—Judgments, Orders, etc.....	40	32	1,280
General Order No. 473.....	1,000	16	16,000
Judgments, Orders, etc.....	3,555	572	*91,380
<i>Secretary of State—</i>			
ENGLISH			
Report submitted to the Honourable the Secretary of State for Canada on Some Problems in the Law of Nationality.....	100	65	6,500
Rules and Regulations and Forms, effective September 1, 1923 (Patent Office of Canada).....	5,000	32	160,000
Guide to Relative Precedence at Regina, 1929.....	319	42	13,398
Regulations under the Trade Unions Act.....	200	12	2,400
An Act respecting Companies.....	400	80	32,000
Reparations (Volume I).....	150	64	9,600
Reparations (Volume II).....	150	632	94,800
Factum.....	435	988	*61,420
The Arms of Canada, 1930 (Third Edition).....	2,000	16	32,000
Agreement between the Government of the Dominion of Canada and the German Reich for the Return of Unliquidated Se- questrated German Property.....	500	12	6,000
<i>Senate of Canada—</i>			
ENGLISH			
Railway Transportation to Senators of Canada, 1930.....	175	12	2,100
Senators of Canada, according to Seniority, February, 1929.....	400	20	8,000
Senators of Canada, according to Seniority, February, 1930.....	600	32	*9,600
<i>Soldier Settlement Board—</i>			
ENGLISH			
Land Settlement—Seventh Report of the Soldier Settlement Board of Canada, December 31, 1928.....	500	32	16,000
<i>Supreme Court—</i>			
ENGLISH			
Canada Law Reports—The Supreme and Exchequer Courts of Canada—			
Part III—March 31, 1929.....	6,750	88	594,000
Part IV—April 30, 1929.....	6,750	120	810,000
Part V—May 31, 1929.....	6,750	162	1,093,500
Part VI—June 30, 1929.....	6,750	114	769,500
Part VII—September 30, 1929.....	6,750	102	688,500
Part VIII—October 31, 1929.....	6,750	150	1,012,500
Part IX—November 30, 1929.....	6,792	128	869,376
Part X—December 31, 1929.....	6,750	116	783,000
Part I—January 31, 1930.....	7,000	148	1,036,000
Part II—February 28, 1930.....	7,000	92	644,000
<i>Trade and Commerce—</i>			
ENGLISH			
The Netherlands East Indies: Points for Exporters.....	500	8	4,000
Points for Exporters to Mexico.....	500	8	4,000
Markets of Central America.....	600	132	79,200
Report of the Fur Farms of Canada, 1927.....	2,200	120	264,000
The Highway and the Motor Vehicle in Canada, 1928.....	2,500	36	90,000
Report on the Mineral Production of Canada—Six Months ending June, 1929.....	1,600	24	38,400
South American Markets.....	1,000	32	32,000
Condensed Preliminary Report on the Trade of Canada, 1929.....	2,200	128	281,600
Carried forward.....	8,556,290	129,456	333,438,504

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,556,290	129,456	333,438,504
<i>Trade and Commerce—Continued</i>			
ENGLISH—Concluded			
Live Stock and Animal Products Statistics, 1928.....	2,000	112	224,000
Annual Statistics of Fruit and Floriculture, 1928.....	1,000	24	24,000
The Manufacturing Industries of Canada, 1926.....	1,000	72	72,000
Dominion Grain Research Laboratory, Winnipeg, Man.—Second Annual Report, January 31, 1929.....	1,550	16	24,800
Forestry in Canada, 1929.....	900	32	28,800
Weights and Measures Act with Orders in Council—Revised and Consolidated, 1929.....	300	112	33,600
Revised and Consolidated Regulations respecting Weights and Measures.....	200	68	13,600
List of Licensed Elevators and Warehouses in the Western Grain Inspection Division, License Year 1928-29.....	811	184	149,224
Annual Report on the Mineral Production of Canada, 1927.....	2,500	386	965,000
Manufacture of the Non-Ferrous Metals in Canada, 1927.....	1,000	74	74,000
Manufactures of the Non-Metallic Minerals in Canada, 1927.....	1,500	128	192,000
Annual Report of the Board of Grain Commissioners for Canada, for the Crop Year ended August 31, 1928.....	550	44	24,200
Canadian Trade in Farm Products, 1928-29.....	100	20	2,000
Iron and Steel and their Products in Canada, 1927.....	1,200	160	192,000
Switzerland as a Market.....	600	52	31,200
Canada Year Book, 1929.....	7,187	1,106	7,948,822
Origin, Birthplace, Nationality and Language of the Canadian People (A Census Study Board on the Census of 1921 and Sup- plementary data).....	3,500	224	784,000
Points for Exporters to South Africa.....	600	20	12,000
What You Should Know about Tuberculosis.....	25,000	18	450,000
Points for Exporters to Japan.....	600	8	4,800
Coal Statistics for Canada, 1928.....	1,200	96	115,200
Report on the Grain Trade of Canada, 1928.....	1,600	208	332,800
List of Publications including Reports, Bulletins, Press Releases, etc. The Canadian Grain Act (Office Consolidation).....	4,000	16	64,000
Food Products, Beverages, Rubber, Tobacco and Miscellaneous Manufactures based on Vegetable Products, 1917-27.....	1,000	88	88,000
Advertising in the Middle East.....	2,200	224	492,800
Canada 1930—A Hand-book of Present Conditions and Recent Progress on the Dominion.....	250	8	2,000
Index to the Commercial Intelligence Journal—Six Months ending December, 1929 (Commercial Intelligence Journal Nos. 1327 to 1352), Volume XLI.....	40,000	384	*8,064,000
Prices and Price Indexes, 1913-1928.....	2,511	24	60,264
Empire Tariff Preferences on Canadian Goods.....	1,000	296	296,000
Points for Exporters to Hong Kong and South China.....	500	36	18,000
Preliminary Report on the Mineral Production of Canada, 1929.....	500	8	4,000
Annual Survey of Education in Canada, 1928.....	2,200	48	105,600
Supplement to the Commercial Intelligence Journal.....	1,700	270	459,000
Quarterly Report on Coal and Coke Statistics for Canada, 1929.....	9,700	80	*129,600
Commercial Intelligence Journal.....	3,000	48	*48,000
Monthly Bulletin of Agricultural Statistics, 1929-30.....	133,700	1,912	*4,821,600
	85,400	460	*3,272,000
BILINGUAL			
Vital Statistics, 1926, Sixth Annual Report—Statistiques vitales, sixième rapport annuel, 1926.....	1,400	640	896,000
Preliminary Report, Vital Statistics of Canada, 1928—Rapport préliminaire, Statistiques vitales du Canada, 1928.....	1,400	20	28,000
Census of Industry, 1927, The Lumber Industry—Recensement du bois, 1927, industrie du bois.....	1,500	88	132,000
Children in Gainful Occupations—Enfants dans des occupations ré- munérées.....	500	88	44,000
Summary of Monthly Traffic Reports, 1928—Résumé des rapports mensuels sur transports commerciaux, 1928.....	600	164	98,400
Special Report on Contributory Causes of Death, 1926—Rapport spécial sur les causes contributoires de décès, 1926.....	1,400	176	246,400
Carried forward.....	8,905,649	137,698	364,506,214

TABLE No. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—Continued

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
Brought forward.....	8,905,649	137,698	364,506,214
<i>Trade and Commerce—Concluded</i>			
<i>BILINGUAL—Concluded</i>			
Canal Statistics, 1928—Statistique des canaux, 1928.....	750	56	42,000
Census of Industry, 1927, Central Electric Stations in Canada— Recensement industriel, 1927, usines électriques au Canada....	2,000	64	128,000
Annual Report of Juvenile Delinquents, September 30, 1928—Rap- port annuel sur les jeunes délinquants, 30 septembre 1928.....	800	48	38,400
Sixth Census of Canada, 1921 (Volume IV—Occupations)—Sixième recensement du Canada, 1921 (volume IV—occupations).....	3,500	988	3,458,000
Quarterly Report of the Trade of Canada, Months of April, May and and June, 1929, and Three Months ending June, 1928 and 1929— Rapport trimestriel du Commerce du Canada, mois d'avril, mai et juin 1929, et trois mois terminés avec juin 1928 et 1929....	1,250	410	512,500
Statistics of Electric Railways of Canada, 1928—Statistique des tramways électriques du Canada, 1928.....	600	64	38,400
Quarterly Report of the Trade of Canada, Months of July, August and September, 1929, and Six Months ending September, 1928 and 1929—Rapport trimestriel du Commerce du Canada, mois de juillet, août et septembre 1929, et six mois terminés avec septembre 1928 et 1929.....	1,250	410	512,500
Fisheries Statistics of Canada, 1928—Statistique des pêcheries du Canada, 1928.....	2,069	332	686,908
Fifty-Third Annual Report of Statistics of Criminal and Other Offences for Year ended September 30, 1928—Cinquante-troi- sième rapport annuel sur la statistique de la criminalité pour l'année expirée le 30 septembre 1928.....	900	348	313,200
Statistics of Steam Railways of Canada, 1928—Statistique des chemins de fer du Canada, 1928.....	800	192	153,600
The Textile Industries of Canada, 1927—Les industries textiles du Canada, 1927.....	1,000	192	192,000
Special Report on Order of Birth of Children Born in 1925—Rapport spécial sur ordre de naissance des enfants nés en 1925.....	1,400	48	67,200
Statistics of Dairy Factories, 1928—Statistique de l'industrie laitière, 1928.....	2,000	104	208,000
Quarterly Report of the Trade of Canada, Months of October, November and December, 1929, and Nine Months ending December, 1928 and 1929—Rapport trimestriel du Commerce du Canada, mois d'octobre, novembre et décembre 1929, et neuf mois terminés avec décembre 1928 et 1929.....	1,250	410	512,500
Statistics of the Civil Service of Canada—Numbers Employed and Expenditures on Salaries by Departments, March 31, 1929 —Statistiques du Service Civil du Canada—Personnel et rému- nération par ministères, 31 mars 1929.....	700	56	39,200
Monthly Review of Business Statistics—Revue de la statistique économique.....	32,500	436	*1,090,000
<i>FRENCH</i>			
Aperçu annuel sur l'éducation du Canada, 1927.....	300	176	52,800
Table des matières du Bulletin des renseignements commerciaux— Pour les six mois terminés avec juin 1929 (numéros 1301 à 1326)	450	16	7,200
Rapport préliminaire sur la production minérale du Canada, 1928..	1,000	40	40,000
Table des matières du Bulletin des renseignements commerciaux— Pour les six mois terminés avec décembre 1929 (numéros 1327 à 1352).....	450	16	7,200
Canada, 1930—Un manuel des conditions actuelles et des progrès récents de la Puissance.....	6,000	188	1,128,000
Annuaire du Canada, 1928-29.....	2,495	1,124	2,804,380
Bulletin mensuel de la statistique agricole, 1929-30.....	9,411	472	*368,752
Bulletin des renseignements commerciaux.....	23,350	832	*373,600
Totals.....	9,001,874	144,720	377,280,554
Totals (March 31, 1929).....	8,507,995	122,589	316,607,397

TABLE NO. 8—Statement of Pamphlet and Miscellaneous Book-work,
1929-30—*Concluded*

NOT EXECUTED IN PRINTING BUREAU

Description	Number of Copies	Number of Pages	Total Number of Printed Pages
<i>Experimental Farms—</i>			
ENGLISH			
The Illustration Stations in Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island—Report of the Chief Supervisor, 1928.....	6,000	128	768,000
<i>Health—</i>			
ENGLISH			
Sanitation—Sewage for Isolated Houses and Small Institutions where Municipal Sewage System is not Available (National Health, Publication No. 1).....	5,000	32	160,000
Information for Young Women about Sex Hygiene (National Health Publication No. 25).....	5,000	8	40,000
Information for Parents—Teaching of Sex Hygiene to Children (National Health, Publication No. 26).....	5,000	8	40,000
Information for Men—Syphilis and Gonorrhoea (National Health, Publication No. 24).....	5,000	8	40,000
Venereal Diseases—Diagnosis and Treatment (National Health, Publication No. 23).....	3,000	32	96,000
Be Prepared to Prevent Infantile Paralysis (National Health, Publication No. 51).....	65,295	54	*1,174,950
Regulations under Opium and Narcotic Drug Act.....	28,500	8	228,000
FRENCH			
Variole et vaccination—Un traité populaire (santé nationale, publication n° 32).....	7,340	50	*160,120
<i>Immigration and Colonization—</i>			
ENGLISH			
Eastern Canada (United States Edition).....	51,025	32	1,632,800
Eastern Canada (British Edition).....	100,675	32	3,221,600
Canada "The New Home Land" (British Edition).....	151,995	32	4,863,840
The Houseworker in Canada.....	22,340	24	536,160
Canada—Descriptive Atlas.....	523,110	160	*41,848,800
<i>Interior—</i>			
SWEDISH			
New Brunswick, Canada.....	5,000	14	70,000
<i>National Revenue—</i>			
ENGLISH			
Sales Catalogues.....	1,000	20	*10,000
BILINGUAL			
Freight Unclaimed Goods—Marchandises non réclamées (fret)....	2,055	34	*34,880
Totals.....	987,335	676	54,925,150
Totals (March 31, 1929).....	463,962	434	14,423,584

*For sale purposes.

TABLE No. 9—Statement of other Letterpress Departmental Work for the Fiscal Year 1929-30

Department	Executed in Printing Bureau		Not Executed in Printing Bureau	
	Envelopes	Copies other work	Envelopes	Copies other work
Advisory Board on Tariff and Taxation.....	18,525	18,200		
Agriculture.....	3,780,212	14,254,566	352,500	3,284,980
Archives.....	23,000	10,150		
Auditor General.....	16,000	51,300		105,000
Canadian Farm Loan Board.....	3,000	159,175		
Chief Electoral Officer.....	5,200	1,386,815		
Civil Service Commission.....	511,275	1,505,370		90,843
Diamond Jubilee Committee.....		200		
Exchequer Court.....		4,000		
Experimental Farms.....	663,455	894,105	20,425	2,200
External Affairs.....	43,375	655,134		500
Finance.....	262,730	1,089,857		44,000
Government Contracts Supervision Committee.....	10,000			
Governor General's Secretary.....		42,770		250
House of Commons.....	557,377	182,946		100
Immigration and Colonization.....	578,095	3,905,160	23,000	232,854
Indian Affairs.....	273,815	890,410		13,210
Insurance.....	20,000	433,181		
Interior.....	1,676,085	8,802,302	56,525	259,195
Justice.....	48,000	125,733	4,000	20,000
Labour.....	165,335	2,954,835		101,830
Library of Parliament.....	3,000	9,400		
Marine and Fisheries.....	1,039,900	6,627,995	40,000	588,119
Mines.....	253,950	757,327	7,996	26,050
National Defence.....	974,280	4,628,067		332,189
National Gallery of Canada.....	8,000	15,000		
National Health.....	204,350	589,690		20,000
National Research Council.....	15,000	49,500		
National Revenue.....	4,054,995	40,082,439		2,849,600
Patent and Copyright Office.....	179,575	498,240		11,500
Penitentiaries.....	13,000	42,512		50
Pensions and National Health.....	339,439	1,484,349	15,000	595,729
Post Office.....	10,157,630	120,351,440	30,000	26,228,051
Privy Council.....	2,000	5,690		
Public Printing and Stationery.....	2,221,739	5,054,320		110,562
Public Works.....	1,758,740	1,789,271		83,750
Railways and Canals.....	132,830	843,300	200	3,000
Railway Commission.....	60,000	231,910		10,350
Royal Canadian Mounted Police.....	165,300	2,293,150	25,000	240,550
Secretary of State.....	195,940	387,493		51,250
Senate of Canada.....	107,300	52,310		500
Soldier Settlement Board.....	111,600	56,300		1,012
Supreme Court.....	52,500	5,090		150
Trade and Commerce.....	1,225,709	5,123,918	20,900	1,274,785
Totals.....	31,932,256	228,344,920	595,546	36,582,159
Totals (March 31, 1929).....	31,621,930	220,899,689	165,547	36,855,351

TABLE No. 10—Statement of Books Bound during the Fiscal Year 1929-30

Department	Executed in Printing Bureau				Not Executed in Printing Bureau			
	Full Leather	Half Leather	Quarter Leather	Cloth	Full Leather	Half Leather	Quarter Leather	Cloth
Advisory Board on Tariff and Taxation.....				289				89
Agriculture.....		44	60	15,038		96	24	1,447
Archives.....		3	1	3				
Auditor General.....	1	55	4	69				
Canadian Farm Loan Board.....				10				
Chief Electoral Officer.....				1				
Civil Service Commission.....		3						
Exchequer Court.....	24	11		5				24
Experimental Farms.....		17		5,026		6		300
External Affairs.....	27,000	3	32	31				
Finance.....		35	10	396				30
Governor General's Secretary.....	1	2		2				
House of Commons.....	1	57	3	3,013		1		20
Immigration and Colonization.....		129	40	301				
Indian Affairs.....	8	55	172	1,985				
Insurance.....	1,001	49		11,250				2
Interior.....	4	314	334	21,792		25	22	1,908
International Joint Commission.....				200				
Justice.....	2	68	1	19		2		
Labour.....		2		312			43	217
Library of Parliament.....	5	736	22	14	22	239		
Marine and Fisheries.....	60	106	214	34,317		100		19,105
Mines.....	50	1	97	3,802	2	32	403	1,046
National Defence.....	12	30	129	5,403		12		1,640
National Health.....				261				239
National Research Council.....				300				
National Revenue.....	339	1,911	4,414	8,582			206	12,552
Patent and Copyright Office.....	72	165	6	56				
Penitentiaries.....		139	3	29		1		
Pensions and National Health.....		4		3,024				
Post Office.....	54	586	1,859	115,550		116	30	32,879
Privy Council.....	8	10	2					
Public Printing and Stationery.....		230		51,024				350
Public Works.....	14	105	50	2,364				3,624
Railways and Canals.....	3	51	8	3,233				
Railway Commission.....	9	11	2	11				
Royal Canadian Mounted Police.....		8		333				
Royal Mint.....		2						
Secretary of State.....	14	53	73	84				
Senate of Canada.....	3	44	20	653				
Soldier Settlement Board.....			10	850				
Supreme Court.....	3	41	11	6		6		
Trade and Commerce.....	10	123	4	15,125		27	9	1,309
Totals.....	28,698	5,203	7,581	304,763	24	663	737	76,772
Totals (March 31, 1929).....	43,687	8,040	4,914	374,226		9	150	5,136

TABLE No. 11—Number of Pads made during the Fiscal Year 1929-30

Department	Executed in Printing Bureau	Not Executed in Printing Bureau
	Quantity	Quantity
Agriculture.....	35,178	4,793
Archives.....	1,800	
Auditor General.....	172	
Canadian Farm Loan Board.....	445	
Civil Service Commission.....	6,245	
Experimental Farms.....	260	505
External Affairs.....	2,250	
Finance.....	2,872	
Governor General's Secretary.....	150	
House of Commons.....	985	4,592
Immigration and Colonization.....	8,625	250
Indian Affairs.....	2,422	
Insurance.....	636	
Interior.....	14,642	150
Justice.....	180	
Labour.....	2,990	1,006
Library of Parliament.....	103	
Marine and Fisheries.....	21,141	50
Mines.....	1,485	
National Defence.....	12,062	9,830
National Health.....	655	
National Revenue.....	42,939	848
Patent and Copyright Office.....	745	4,350
Penitentiaries.....	75	
Pensions and National Health.....	14,284	50
Post Office.....	226,078	230,857
Privy Council.....	144	
Public Printing and Stationery.....	114,339	56,061
Public Works.....	18,700	
Railways and Canals.....	5,352	
Railway Commission.....	1,810	
Royal Canadian Mounted Police.....	50	2,005
Secretary of State.....	60	
Senate of Canada.....	1,650	
Soldier Settlement Board.....	60	
Trade and Commerce.....	29,740	2,802
Totals.....	574,384	318,149
Totals (March 31, 1929).....	609,486	191,207

TABLE No. 12—Statement of Prepaid Post Office Envelopes made and stamped during the Fiscal Year 1929-30

	Executed in Printing Bureau	Not Executed in Printing Bureau
	Quantity made and stamped	Quantity made and stamped
One-cent envelopes.....	6,338,583	2,295,000
Two-cent envelopes.....	13,074,642	2,840,355
Totals.....	19,413,225	5,135,355
Totals (March 31, 1929).....	14,059,714	3,031,468

TABLE No. 13—Statement of the Die Stamping of Letter and Note Headings and Envelopes during the Fiscal Year 1929-30

Department	Executed in Printing Bureau				Not Executed in Printing Bureau
	Foolscap, Half Cap, Letter and Half Letter	Note and Half Note	Envelopes	Number of Impressions	Envelopes
Advisory Board on Tariff and Taxation.....	11,700			11,700	
Agriculture.....	50,000	1,000	20,000	71,000	
Auditor General.....	5,000	766	175	5,941	
Canadian Farm Loan Board.....	4,000		2,000	6,000	
Chief Electoral Officer.....	10,000	1,020	7,000	18,020	
Civil Service Commission.....	9,000	843	5,525	15,368	
Exchequer Court.....	5,000		3,750	8,750	
External Affairs.....	57,300	21,950	64,850	144,100	
Finance.....	2,000	625	23,000	25,625	
Governor General's Secretary.....	30,500	33,438	29,925	93,863	
House of Commons.....	24,000	24,362	472,400	520,762	
Immigration and Colonization.....	25,000	725	27,000	52,725	
Indian Affairs.....	10,000	310	2,500	12,810	
Insurance.....	7,500			7,500	
Interior.....	47,500	656	54,550	102,706	
Justice.....	33,600	575	38,300	72,475	
Labour.....	6,000	10,853	10,840	27,693	25
Marine and Fisheries.....	11,000		7,500	18,500	
Mines.....	11,500			11,500	
National Defence.....	28,000	6,030	47,325	81,355	
National Gallery of Canada.....	5,000			5,000	
National Health.....	9,000	1,000		10,000	
National Research Council.....	2,000			2,000	
National Revenue.....	22,815	4,000	23,425	50,240	
Patent and Copyright Office.....	2,000	412	5,000	7,412	
Pensions and National Health.....	43,000	2,200	4,000	49,200	
Post Office.....	36,000		12,000	48,000	
Privy Council.....	44,000	18,610	7,500	70,110	
Public Printing and Stationery.....	3,000	6,200	554,000	563,200	
Public Works.....	23,500	1,250	19,000	43,750	
Railways and Canals.....	22,000	6,920	5,555	34,475	
Railway Commission.....	8,000	6,060	7,000	21,060	
Royal Canadian Mounted Police.....			10,029	10,029	
Royal Mint.....			5,000	5,000	
Secretary of State.....	58,100	3,230	5,000	66,330	
Senate of Canada.....	30,625	57,628	70,000	158,253	
Soldier Settlement Board.....		106		106	
Supreme Court.....	5,000	3,000	5,000	13,000	
Trade and Commerce.....	26,650	8,380	8,175	43,205	
Totals.....	729,290	222,149	1,557,324	2,508,763	25
Totals (March 31, 1929).....	846,425	207,261	1,117,398	2,171,084	1,000

TABLE No. 14—Statement of the Loose-Leaf Work performed during the Fiscal Year 1929-30

Department	Executed in Printing Bureau				Not Executed in Printing Bureau			
	Binders	Loose Leaves	Index Leaves	Index Cards	Binders	Loose Leaves	Index Leaves	Index Cards
Advisory Board on Tariff and Taxation.....	2		58					
Agriculture.....	146	594,386	1,515	10,000	1	11,500	87	
Auditor General.....	31	66,206	294					
Canadian Farm Loan Board.....	37	24,352	476		33	2,500	29	
Chief Electoral Officer.....		665,000						
Civil Service Commission.....	15	48,000						
Exchequer Court.....		2,000						
Experimental Farms.....	48	49,450	37		3	1,850		
External Affairs.....	6	92,850	79	50				
Finance.....	26	146,422	663					
Governor General's Secretary.....	1							
House of Commons.....	2	3,200	29					
Immigration and Colonization.....	72	236,678	390,518			1,546		
Indian Affairs.....	10	5,100	368					
Insurance.....	14	3,000	522		10	813	176	
Interior.....	321	496,281	2,643	5,250		18,028		
Justice.....	3	6,520	398					
Labour.....	7	283,760	272					
Marine and Fisheries.....	243	537,036	1,026			3,500		
Mines.....	16	35,924	177					
National Defence.....	419	804,192	10,361					
National Gallery of Canada.....	1	200				500		
National Health.....	13	22,100	204			560		
National Revenue.....	217	1,906,719	3,881	10,000	2	55,160	537	
Patent and Copyright Office.....	11	4,656	1,134			856	29	
Penitentiaries.....	12	16,085	226	2,000		700		
Pensions and National Health.....	67	127,750	462		14	5,015		
Post Office.....	328	727,854	1,654	200		125		
Public Printing and Stationery.....	79	2,473,942	1,409	1,145,100				
Public Works.....	89	106,450	918	3,000		13,025	14	5,010
Railways and Canals.....	84	382,700	1,483			2,000		
Railway Commission.....	5	36,000	28					
Royal Canadian Mounted Police.....	102	55,400	29					
Secretary of State.....	8	8,000	305			1,050		
Senate of Canada.....	2	3,350	29					
Soldier Settlement Board.....	94	28,000						
Trade and Commerce.....	347	1,171,826	541	800		253,300		
Totals.....	2,878	11,171,383	421,739	1,174,400	53	372,008	872	5,010
Totals (March 31, 1929).....	4,118	9,774,223	27,225	1,359,175	3	25,590	87	5,245

TABLE No. 15—Statement giving the Number of Maps, Plans, Cheques and Forms Lithographed during the Fiscal Year 1929-30

Department	Not Executed in Printing Bureau	
	Maps and Plans	Cheques and Forms
Advisory Board on Tariff and Taxation.....		500
Agriculture.....	21,849	185,930
Archives.....	1,655	800
Auditor General.....		1,254
Canadian Farm Loan Board.....		23,036
Chief Electoral Officer.....		200
Civil Service Commission.....		650
Exchequer Court.....		200
Experimental Farms.....		51,600
External Affairs.....		8,150
Finance.....		578,450
Governor General's Secretary.....		1,480
House of Commons.....	14,500	660,357
Immigration and Colonization.....		35,950
Indian Affairs.....		89,337
Interior.....	2,138,254	526,486
International Joint Commission.....		75,015
Justice.....		5,600
Labour.....		28,779
Library of Parliament.....		560
Marine and Fisheries.....	66,056	166,312
Mines.....	135,307	222,310
National Defence.....		258,597
National Health.....		23,485
National Revenue.....	60,000	327,583
Patent and Copyright Office.....		35,953
Penitentiaries.....		15,000
Pensions and National Health.....		1,346,820
Post Office.....	3,200	1,579,640
Privy Council.....		250
Public Printing and Stationery.....	5,725	913,857
Public Works.....		228,554
Railways and Canals.....	3,362	76,204
Railway Commission.....		1,045
Royal Canadian Mounted Police.....		92,500
Secretary of State.....		24,224
Senate of Canada.....		8,150
Soldiers' Civil Re-Establishment.....		180,000
Soldier Settlement Board.....	307	16,000
Supreme Court.....		510
Trade and Commerce.....	11,382	920,793
Totals.....	2,461,597	8,712,121
Totals (March 31, 1929).....	1,560,400	9,057,187

TABLE No. 16—Statement of the Number of Half-tones, Line Cuts, Electros and Dies made during the Fiscal Year 1929-30

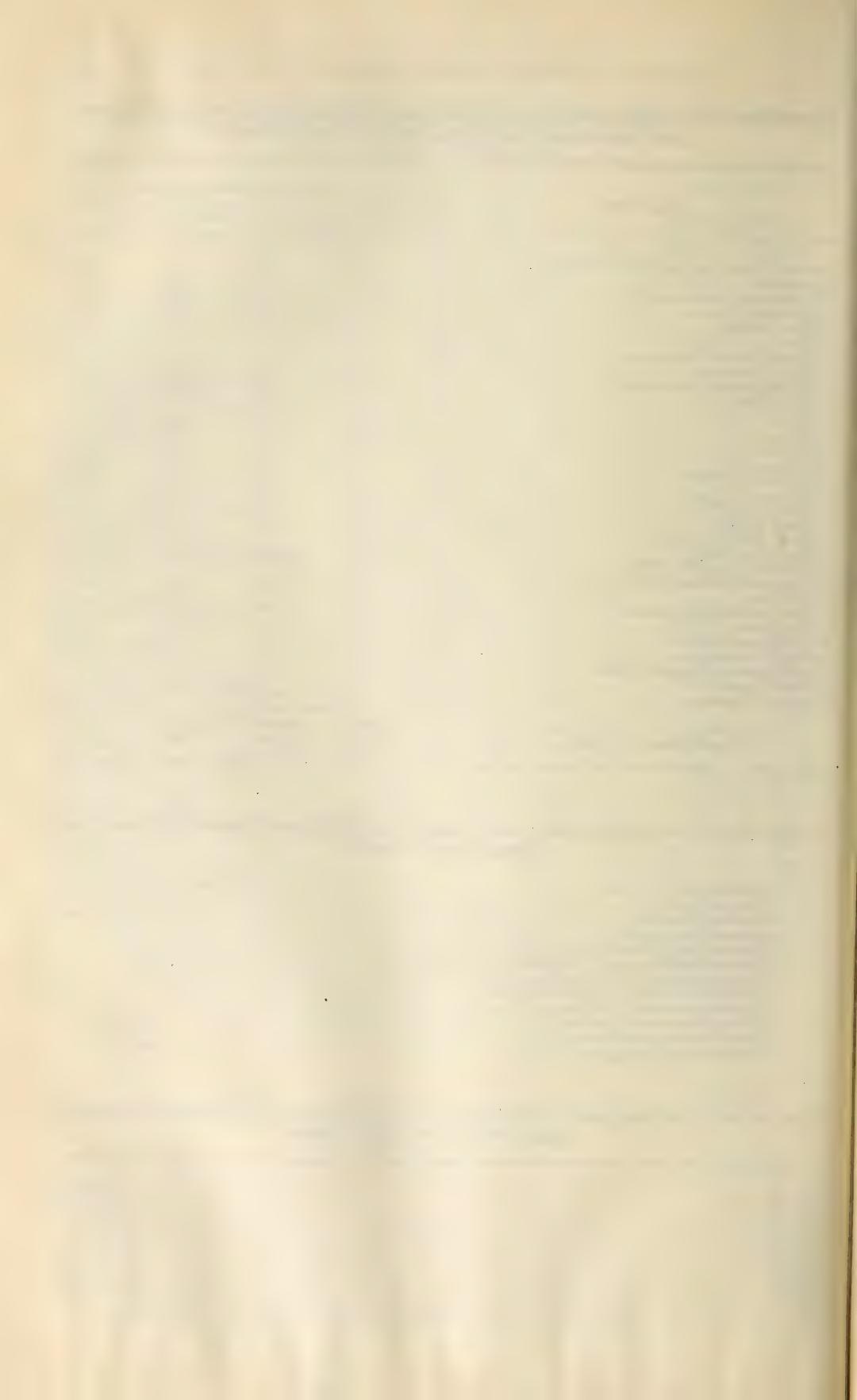
Department	Not Executed in Printing Bureau			
	Half-tones	Line Cuts	Electros	Dies
Advisory Board on Tariff and Taxation.....		4		4
Agriculture.....	178	64	16	16
Civil Service Commission.....			4	
Experimental Farms.....	744	59	110	
External Affairs.....		1		4
Finance.....			2	1
Governor General's Secretary.....	1			1
House of Commons.....	6	16		1
Immigration and Colonization.....	89	6	62	
Indian Affairs.....	2	6	1	
Insurance.....	13	2		
Interior.....	720	139	103	1
Justice.....			1	1
Labour.....	7	44	19	
Marine and Fisheries.....	4	14	14	
Mines.....	128	181	2	
National Defence.....	25	6	3	2
National Health.....	12	2	15	
National Research Council.....	1	17		1
National Revenue.....	66	2	62	3
Patent and Copyright Office.....	6	8,618	1	
Pensions and National Health.....	58		4	1
Post Office.....	2	24	600	4
Public Printing and Stationery.....	19	4		
Public Works.....	7			1
Railways and Canals.....	6	1	8	1
Railway Commission.....		8	1	3
Royal Canadian Mounted Police.....	2	1		1
Supreme Court.....		6		
Trade and Commerce.....	53	181	97	3
Totals.....	2,149	9,406	1,125	49
Totals (March 31, 1929).....	1,291	8,545	1,041	52

TABLE No. 17—Lithographing and Engraving Division—Record of Work for Fiscal Year 1929-30

Sketches for steel dies.....	18
Engraved steel dies.....	32
Sketches for cards.....	20
Engraved card plates.....	54
Sketches for Invitation and Christmas cards.....	20
Engraved Invitation and Christmas card plates.....	52
Engraved patches for cheques.....	144
Sketches for cheques, certificates, etc.....	8
Engraved cheques, certificates, etc.....	8
Making diagrams for line cuts.....	5
Proofs from copper plates.....	699
Transfers from map plates.....	1,427

TABLE No. 18—Comparative Statement of the Number of Letterpress Impressions for the last Eight Years

922-23.....	98,789,239
923-24.....	109,417,386
924-25.....	96,879,527
925-26.....	97,011,711
926-27.....	113,973,666
927-28.....	111,908,011
928-29.....	112,475,762
929-30.....	117,163,120



ACCOUNTANT'S BRANCH

OTTAWA, August 1, 1930

F. A. ACLAND, Esq.,
King's Printer and Controller of Stationery.

SIR,—I have the honour to submit the following report of the transactions of this branch of the department for the fiscal year ending March 31, 1930. Complete details of the financial operations of the department will be found under the following heads:—

1. General Financial Statement.
2. Letter of Credit Account.
3. King's Printer Advance Account.
4. Printing Branch Account and comparative statements.
5. Stationery Branch Account and comparative statements.
6. Votes, detail of expenditure.
7. *Canada Gazette*, comparative statement of Revenue and Expenditure.
8. Casual Revenue Account.

Respectfully submitted,

F. G. BRONSKILL,
Chief Accountant.

1. GENERAL FINANCIAL STATEMENT FOR THE FISCAL YEAR ENDING MARCH 31, 1930

Dr.

Dr.

	Printing Branch		Stationery Branch		Casual Revenue Receipts	Appropriation Credits	Total
	Letter of Credit Receipts	Work completed and charged to Departments	Letter of Credit Receipts	Goods purchased and charged to Departments			
	\$	cts.	\$	cts.	\$	cts.	\$
KING'S PRINTER'S ADVANCE ACCOUNT							
Advances to Printing Branch Account by letter of credit.....		\$2,393,225 75					
Advances to Printing Branch Account by cheques on New York including premium		2,844 22					
Advances to Printing Branch Account by bills of exchange.....		885 64					
Advances to Printing Branch Account by cheques on foreign countries, including bank charges.....		13 30					
			2,396,968 91				2,396,968 91
Advances to Stationery Branch Account by letter of credit.....							
Advances to Stationery Branch Account by cheques on New York, including premium.		\$1,370,179 49					
Advances to Stationery Branch Account by bills of exchange.....		19,322 05					
Advances to Stationery Branch Account by cheques on foreign countries, including bank charges.....		21,514 58					
		959 90					
Printing, binding, etc., chargeable to departments			1,411,976 02				1,411,976 02
Printing etc., ordered outside and chargeable to departments.							
Paper stock used on above work.....		1,243,526 03					
Electros sold to public.....		463,216 66					
Sanitary towels sold to public.....		776,109 26					
		13 50					
		1 50					
Total.....							
Stationery, etc., chargeable to departments.....							2,482,866 95
Discarded typewriters sold to public.....							
Total.....							1,440,339 64

CASUAL REVENUE ACCOUNT

Proceeds of sales:—

Parliamentary publications to departments.....	
Parliamentary publications to public.....	
<i>Canada Gazette</i> —advertising and subscriptions.....	
Waste paper, packing cases, etc., to public.....	
Excess of revenue over expenditure in Printing Branch Account.....	
Excess of revenue over expenditure in Stationery Branch Account.....	
Total.....	
	VOTES
No. 23 Civil Government Salaries.....	
No. 23 Civil Government Contingencies.....	
No. 212 and 243 Printing, binding and distributing the Annual Statutes.....	
No. 213 <i>Canada Gazette</i>	
No. 214 Plant—Repairs and renewals.....	
No. 215 Plant—New.....	
No. 216 Distribution of parliamentary documents.....	
No. 217 Printing and Binding Government publications for sale and distribution to departments and the public.....	
Gratuities—under chap. 22, sec. 56, R.S.C., 1927.....	
Total.....	
Grand total.....	

213,439 09

308, 924 33

8,254,514 94

308, 924 33

213, 439 09

1,440,339 64

417,976,02

2,482,866 95

2,396,968 91

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2. LETTER OF CREDIT ACCOUNT

Amount received by letters of credit for the fiscal year ending March 31, 1930.....	\$ 3,969,320 84
Amount received by bills of exchange.....	22,400 22
Amount received by cheques on New York.....	28,269 90
Amount received by cheques on France.....	167 42
Amount received by cheques on Holland.....	7 87
Amount received by cheques on Belgium.....	4 28
Amount received by cheques on Germany.....	769 63
Amount received by cheques on Spain.....	2 52
Amount received by cheques on Switzerland.....	8 45
Amount received by cheques on Manilla, P.I.....	4 99
Amount received by premiums on cheques on New York.....	166 97
Amount received by bank charges on cheques on foreign countries.....	7 19
	<u>\$ 4,021,130 28</u>

Detail by accounts of net expenditure drawn on above credit account—

Printing Branch Account.....	\$ 2,396,968 91
Stationery Branch Account.....	1,411,976 02
Printing, binging and distributing the Annual Statutes.....	12,939 19
Canada Gazette.....	34,783 83
Plant—Repairs and renewals.....	29,404 23
Plant—New.....	42,030 39
Distribution of parliamentary documents.....	49,209 63
Printing and binding Government publications for sale and distribution to departments and the public.....	39 999 26
Gratuities.....	840 68
	<u>\$ 4,018,152 14</u>

Refunds deposited to respective accounts—

Printing Branch Account.....	\$ 2,488 83
Stationery Branch Account.....	136 95
Plant—Repairs and renewals.....	13 42
Distribution of parliamentary documents.....	338 94
	<u>2,978 14</u>
	<u>\$ 4,021,130 28</u>

3. KING'S PRINTER'S ADVANCE ACCOUNT

Advances to King's Printer during fiscal year 1929-1930—

For Printing Branch.....	\$ 2,399,457 74
For Stationery Branch.....	1,412,112 97
	<u>\$ 3,811,570 71</u>
Amount received for printing, etc., in excess of expenditure on same.....	13,072 88
Amount received for stationery in excess of expenditure on same.....	32,666 54
	<u>45,739 42</u>
	<u>\$ 3,857,310 13</u>

Deposits to credit of Receiver General made by the King's Printer to cover advances made during the fiscal year 1929-30—

Amount received from Parliament and departments for printing, etc.....	\$ 2,482,851 95
Amount from sale of electros.....	13 50
Amount from sale of sanitary towels.....	1 50
	<u>\$ 2,482,866 95</u>
Amount of Refunds—Printing Branch.....	2,488 83
	<u>\$ 2,485,355 78</u>
Amount received from Parliament and departments for stationery, etc.....	\$ 1,435,414 39
Amount from sale of discarded typewriters.....	4,925 25
	<u>\$ 1,440,339 64</u>
Amount of refunds—Stationery Branch.....	136 95
	<u>1,440,476 59</u>
	<u>\$ 3,925,832 37</u>
Amount by which the stock of the Printing Branch was decreased during the fiscal year 1929-30.....	72,825 16
	<u>\$ 3,853,007 21</u>
Amount by which the stock of the Stationery Branch was increased during the fiscal year 1929-30.....	4,302 92
	<u>\$ 3,857,310 13</u>

4. PRINTING BRANCH ACCOUNT

Inventory, April 1, 1929.....	\$	416,981 49
Expenditure during the fiscal year 1929-30—		
Printing material.....	\$	77,829 71
Paper.....		717,673 35
Outside work.....		459,150 80
		<hr/>
Salaries and wages.....		1,254,653 86
		1,097,392 54
Other Expenditure—		
Office printing.....	\$	21,241 07
Office stationery.....		4,020 49
Char service and supplies.....		13,827 85
Freight, etc.....		4,015 18
Customs' duty.....		1,504 75
Brokerage fees.....		42 50
Bank charges and exchange.....		10 67
Gratuity (two months' pay to the widow of Alexander Salisbury, labourer who died October 10, 1929).....		260 00
		<hr/>
		44,922 51
	\$	2,813,950 40
Excess of revenue over expenditure on operations for the fiscal year 1929-30 transferred to Casual Revenue Account.....		13,072 88
	\$	<hr/>
		2,827,023 28
Revenue for the fiscal year 1929-30—		
Sale of inside work, printing, etc., to Parliament and departments.....	\$	2,019,635 29
Sale of outside work to Parliament and departments.....		463,216 66
		<hr/>
	\$	2,482,851 95
Sale of electros.....	\$	13 50
Sale of sanitary towels.....		1 50
		<hr/>
		15 00
Inventory on March 31, 1930.....	\$	2,482,866 95
		344,156 33
	\$	<hr/>
		2,827,023 28

NOTE.—Printing supplied during the fiscal year and not paid by departments when books closed on May 31, 1930, but included in the revenue for the year:—

Agriculture, \$84,848.32; Civil Service Commission, \$6,564.86; Exchequer Court, \$54.56; External Affairs, \$273.05; Governor General's Secretary, \$579.77; Insurance, \$13,357.97; Interior, \$25,123.32; International Joint Commission, \$11,011.31; Justice, \$780.61; Labour, \$43,155.20; Library of Parliament, \$36.06; Marine and Fisheries, \$13,958.24; Mines, \$17,883.45; National Defence, \$1,694.96; Pensions and National Health, \$15,788.33; Public Works, \$9,077.49; Railways and Canals, \$2,606.05; Railway Commission, \$425.29; Secretary of State, \$9,980.63; Soldier Settlement Board, \$696.90; Supreme Court, \$1,918.28; Trade and Commerce, \$47,107.19.....	\$	306,921 84
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DETAIL of Inventory of Printing Branch as on March 31, 1930

Work in process—Labour and burden—		
Hand composition.....	\$	41,476 86
Monotype composition.....		25,215 93
Linotype composition.....		14,462 60
		<hr/>
Stereotype.....		81,155 39
Presswork.....		2,019 28
Binding.....		14,224 03
Die-stamping.....		15,723 89
Engraving.....		351 63
		477 50
	\$	<hr/>
		113,951 72
Work in process—Material—		
Press division—Ink.....	\$	376 73
Bindery division.....		482 85
Engraving division.....		18 39
Paper.....		61,946 89
Salvage.....		31 15
		<hr/>
	\$	62,856 01

DEPARTMENT OF PUBLIC PRINTING AND STATIONERY

DETAIL OF INVENTORY OF PRINTING BRANCH AS ON MARCH 31, 1930—*Concluded*

Materials, etc., on hand in different divisions—

Paper stores division.....	\$ 78,499 96	
Printing stores division.....	67,507 03	
Mechanical division.....	2,021 11	
Hand composition division.....	26 11	
Monotype division.....	14 85	
Linotype division.....	6 59	
Stereotype division.....	51 83	
Press division.....	1,095 24	
Bindery division.....	4,792 47	
Die-stamping division.....	17 68	
Engraving division.....	376 88	
	\$ 154,409 75	
Amount for lithographing, printing, binding, etc., paid to outside firms and not charged to Parliament and departments on March 31, 1930.....	12,938 85	
	\$ 344,156 33	

STATEMENT, by Departments, of accounts paid for Printing, Binding, Lithographing, etc., done outside the Department, during the fiscal year ending March 31, 1930.

Department	Duty, Freight, etc., paid to transportation companies etc.		Printing, Binding and Litho- graphing		Total	
	\$	cts.	\$	cts.	\$	cts.
Advisory Board on Tariff and Taxation.....	35	80	631	38	667	18
Agriculture.....	142	65	30,031	98	30,174	63
Archives.....			18	87	18	87
Auditor General.....			812	39	812	39
Chief Electoral Officer.....			37	74	37	74
Civil Service Commission.....			1,066	46	1,066	46
Exchequer Court.....			102	00	102	00
External Affairs.....	17	72	575	87	593	59
Finance.....			4,021	53	4,021	53
Governor General's Secretary.....			507	90	507	90
House of Commons.....			1,218	30	1,218	30
Immigration and Colonization.....	4	36	47,182	64	47,187	00
Indian Affairs.....			932	04	932	04
Insurance.....			437	55	437	55
Interior.....	79	68	88,572	21	88,651	89
International Joint Commission.....	0	45	18,824	08	18,824	53
Justice.....	2	25	849	88	852	13
Labour.....			2,585	63	2,585	63
Library of Parliament.....			842	78	842	78
Marine and Fisheries.....	27	23	29,938	10	29,965	33
Mines.....	19	13	45,651	96	45,671	09
National Defence.....	0	65	3,750	34	3,750	99
National Gallery of Canada.....			14	79	14	79
National Research Council.....			96	90	96	90
National Revenue.....			15,257	58	15,257	58
Pensions and National Health.....	5	70	9,824	73	9,830	43
Post Office.....	2,040	75	111,634	58	113,675	33
Privy Council.....			23	20	23	20
Public Printing and Stationery.....	27	39	6,952	18	6,979	57
Public Works.....			3,553	14	3,553	14
Railways and Canals.....			1,305	24	1,305	24
Railway Commission.....			207	11	207	11
Royal Canadian Mounted Police.....			1,073	89	1,073	89
Secretary of State.....			11,973	76	11,973	76
Senate of Canada.....			130	06	130	06
Soldier Settlement Board.....			229	10	229	10
Supreme Court.....			42	48	42	48
Trade and Commerce.....	29	23	18,240	43	18,269	66
Total.....	2,432	99	459,150	80	461,583	79

STATEMENT of Printing, Lithographing, etc., and Paper Supplied to Parliament and Departments, for the fiscal year ending March 31, 1930.

Department	Outside Work		Inside Printing, Binding, etc.		Paper		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Advisory Board on Tariff and Taxation.....	641	23	17,066	84	1,004	24	18,712	31
Agriculture.....	30,733	28	99,485	93	79,307	00	209,526	21
Archives.....	321	43	3,650	55	531	11	4,503	09
Auditor General's Office.....	812	39	14,604	97	1,953	29	17,370	65
Chief Electoral Officer.....	37	74	11,027	10	11,186	79	22,251	63
Civil Service Commission.....	532	95	6,996	73	6,179	86	13,709	54
Diamond Jubilee Committee.....			1	73	0	13		1 86
Exchequer Court.....	102	00	167	79	105	91	375	70
External Affairs.....	320	34	17,476	54	5,047	81	22,844	69
Finance.....	4,562	56	10,984	14	8,108	49	23,655	19
Govt. Contracts Supervision Committee.....			7	25	13	64		20 89
Governor General's Secretary.....	507	90	1,258	07	1,008	01	2,773	98
House of Commons.....	3,786	74	96,622	68	18,649	10	119,058	52
Immigration and Colonization.....	47,209	11	16,852	19	39,928	47	103,989	77
Indian Affairs.....	932	04	5,835	19	3,841	02	10,608	25
Insurance.....	437	55	40,341	10	7,369	14	48,147	79
Interior.....	87,928	56	95,347	96	80,411	74	263,688	26
International Joint Commission.....	18,557	03	2,834	19	631	41	22,022	63
Justice.....	682	79	6,643	31	1,228	76	8,554	86
Labour.....	2,566	07	41,326	95	16,641	52	60,534	54
Library of Parliament.....	963	11	5,590	47	67	68	6,621	26
Marine and Fisheries.....	29,481	62	69,923	52	26,492	84	125,897	98
Mines.....	43,374	47	51,555	44	13,823	00	108,752	91
National Defence.....	3,733	92	37,323	50	28,174	27	69,231	69
National Gallery of Canada.....	14	79	328	84	216	50	560	13
National Research Council.....	96	90	818	29	339	94	1,255	13
National Revenue.....	15,100	95	78,070	95	118,656	07	211,827	97
Penitentiaries.....	126	48	2,542	15	1,298	66	3,967	29
Pensions and National Health.....	9,151	04	29,285	27	23,959	26	62,395	57
Post Office.....	114,830	57	122,418	92	128,306	12	365,555	61
Privy Council.....	23	20	836	88	396	90	1,256	98
Public Printing and Stationery.....	8,303	88	108,504	52	64,400	87	181,209	27
Public Works.....	3,640	24	13,731	92	13,877	58	31,249	74
Railways and Canals.....	1,884	35	8,300	93	5,041	80	15,227	08
Railway Commission.....	207	11	4,830	66	1,236	98	6,274	75
Royal Canadian Mounted Police.....	1,036	15	4,293	66	8,073	90	13,403	71
Royal Mint.....			33	00	46	69	79	69
Secretary of State.....	11,726	66	42,244	37	10,652	56	64,623	59
Senate of Canada.....			2,333	18	120	66	2,453	84
Soldier Settlement Board.....	229	10	2,217	29	1,221	96	3,668	35
Supreme Court.....	100	36	7,081	72	3,994	06	11,176	14
Trade and Commerce.....	18,520	05	162,729	34	42,563	52	223,812	91
Total.....	463,216	66	1,243,526	03	776,109	26	2,482,851	95

COMPARATIVE STATEMENT of Printing, Binding, Lithographing, etc., and Paper supplied to Parliament and Departments, for the last five fiscal years, 1925-26, 1926-27, 1927-28, 1928-29 and 1929-30.

Department	1925-26	1926-27	1927-28	1928-29	1929-30
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Advisory Board on Tariff and Taxation.....		979 65	921 01	7,573 37	18,712 31
Agriculture.....	153,160 51	160,705 29	192,344 88	202,464 72	209,526 21
Archives.....	1,398 83	18,593 11	4,004 30	5,802 22	4,503 09
Auditor General.....	16,471 20	15,756 12	13,049 01	15,475 21	17,370 65
Chief Electoral Officer.....	59,854 84	36,609 23	8,696 34	31,926 39	22,251 63
Civil Service Commission.....	7,217 68	6,807 83	8,970 92	8,538 26	13,709 54
Diamond Jubilee Committee.....			11,382 74	408 97	1 86
Exchequer Court.....	447 95	224 99	447 87	216 00	375 70
External Affairs.....	19,913 20	16,194 29	19,591 11	23,964 06	22,844 69
Finance.....	21,416 43	23,180 91	22,697 88	23,187 25	23,655 19
Government Contracts Supervision Committee	542 69	114 77	187 34	93 27	20 89
Governor General's Secretary.....	2,201 70	5,021 37	4,302 55	3,794 66	2,773 98
Health.....	14,280 50	19,873 19	24,479 23	28,033 16	
House of Commons.....	151,772 22	165,109 39	97,356 21	127,282 25	119,058 52
Immigration and Colonization.....	100,695 87	30,626 33	114,293 04	78,895 91	103,989 77
Indian Affairs.....	5,579 34	8,140 51	8,051 72	7,702 18	10,608 25
Insurance.....	26,422 15	28,688 30	27,379 44	27,489 19	48,147 79
Interior.....	135,266 56	154,334 71	163,991 88	182,706 15	263,688 26
International Joint Commission.....					22,022 63
Justice.....	6,345 58	5,618 83	5,588 18	11,751 00	8,554 86
Labour.....	37,186 78	46,333 63	46,061 26	50,131 17	60,534 54
Library of Parliament.....	5,239 22	5,021 02	6,412 97	6,766 81	6,621 26
Marine.....	82,753 26	89,262 81	99,989 10	102,646 81	125,897 98
Mines.....	98,909 24	85,302 70	66,054 54	74,053 34	108,752 91
National Defence.....	61,096 29	59,156 31	74,187 04	75,747 47	69,231 69
National Gallery of Canada.....	396 48	356 62	269 31	1,080 35	560 13
National Research Council.....	2,017 92	2,710 51	2,056 87	1,758 33	1,255 13
National Revenue.....	174,370 38	159,616 21	216,908 60	190,719 13	211,827 97
Patent and Copyright Office.....	43,125 53	36,594 61			
Penitentiaries.....	3,019 10	2,541 90	2,935 80	2,767 48	3,967 29
Pensions and National Health.....					62,395 57
Post Office.....	287,342 21	349,987 95	360,334 60	357,915 30	365,555 61
Privy Council.....	608 33	1,014 30	1,754 59	1,197 00	1,256 98
Public Printing and Stationery.....	127,966 70	137,269 84	248,739 14	178,259 05	181,209 27
Public Works.....	18,529 03	20,970 09	20,204 43	19,517 85	31,249 74
Railways and Canals.....	12,939 56	13,530 74	31,406 53	15,273 11	15,227 08
Railway Commission.....	5,013 80	4,004 33	9,157 69	7,487 80	6,274 75
Royal Canadian Mounted Police.....	5,432 34	9,834 05	4,765 39	19,142 80	13,403 71
Royal Mint.....	37 10	141 67	150 35	42 02	79 69
Secretary of State.....	10,941 24	8,977 72	41,008 99	55,728 44	64,623 59
Senate of Canada.....	7,013 62	4,574 45	2,297 20	8,377 67	2,453 84
Soldiers' Civil Re-establishment.....	12,872 53	14,551 57	16,143 91	24,027 75	
Soldier Settlement Board.....	4,530 12	3,903 26	4,084 10	5,719 20	3,668 35
Supreme Court.....	9,575 70	9,127 96	10,056 82	9,655 83	11,176 14
Trade and Commerce.....	165,470 18	175,367 24	204,900 93	192,889 46	223,812 91
Total.....	1,899,373 91	1,936,730 31	2,197,615 81	2,188,208 39	2,482,851 95

5. STATIONERY BRANCH ACCOUNT

Inventory, April 1, 1929.....		\$	123,649 08
Amount of goods purchased during the fiscal year 1929-30—			
Canadian.....	\$ 1,230,818 18		
United Kingdom.....	21,514 58		
United States.....	19,219 21		
Other Countries.....	952 96		
		\$	1,272,504 93
Salaries and wages.....			104,475 71
Other Expenditure—			
Office printing.....	2,272 31		
Office stationery.....	3,633 40		
Char service and supplies.....	2,276 70		
Freight, etc.....	20,400 43		
Postage.....	4,000 00		
Customs duty.....	2,207 00		
Brokerage fees.....	95 76		
Bank charges and exchange.....	109 78		
			34,995 38
		\$	1,535,625 10
Excess of revenue over expenditure on operations for the fiscal year 1929-30 transferred to Casual Revenue Account.....			32,666 54
		\$	1,568,291 64
Amount of goods issued to Parliament and departments during the fiscal year 1929-30.....	\$ 1,435,414 39		
Amount of sales of discarded typewriters.....	4,925 25		
		\$	1,440,339 64
Inventory, March 31, 1930.....			127,952 00
		\$	1,568,291 64

The stock of goods has been increased \$4,302.92 during the fiscal year.

NOTE:—Stationery supplied during the fiscal year and not paid by departments when books closed on May 31, 1930, but included in the revenue for the year:—

Agriculture, \$35,119.81; Civil Service Commission, \$6,790.83; Exchequer Court, \$177.87; Governor General's Secretary, \$564.14; Indian Affairs, \$3,321.68; Insurance, \$210.77; Interior, \$24,054.07; Justice, \$1,763.34; Labour, \$7,017.34; Library of Parliament, \$217.89; Marine and Fisheries, \$1,725.23; National Defence, \$5,789.31; Pensions and National Health, \$5,186.39; Public Works, \$6,278.14; Railways and Canals, \$4,329.03; Railway Commission, \$1,356.18; Secretary of State, \$6,154.39; Soldier Settlement Board, \$2,010.85; Trade and Commerce, \$18,254.79.....\$130,322 05

STATEMENT of Goods purchased and Goods issued to Parliament and Departments in each month for the fiscal year ending March 31, 1930.

Month	Canadian	United Kingdom	United States	Other Countries	Total	Goods Issued
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1929						
April.....	76,904 15	553 08	330 72	1 70	77,789 65	99,411 09
May.....	90,354 91	845 08	1,548 08	103 60	92,851 67	107,421 70
June.....	98,339 49		1,853 91		100,193 40	111,455 96
July.....	92,682 59	1,151 51	1,233 13	137 82	95,205 05	115,744 86
August.....	94,146 62	1,523 29	567 52	3 95	96,241 38	119,108 16
September.....	119,201 94	1,883 71	1,435 46	19 17	122,540 28	113,618 57
October.....	99,799 58	1,785 68	493 20	6 45	102,034 91	133,379 07
November.....	125,161 60	4,344 78	2,014 79	83 85	131,605 02	123,310 10
December.....	102,306 20		3,842 51	8 92	106,157 63	95,104 13
1930						
January.....	92,678 84	4,047 07	1,375 90	135 41	98,237 22	109,709 15
February.....	84,527 47	842 05	2,935 81	32 07	88,337 40	114,706 39
March.....	174,905 28	4,538 33	1,590 87	420 02	181,454 50	192,364 21
	1,251,008 67	21,514 58	19,221 90	952 96	1,292,698 11	1,435,414 39
Refunds on goods purchased	91 41		2 69		94 10	
Total of goods purchased and goods issued.....	1,250,917 26	21,514 58	19,219 21	952 56	1,292,604 01	1,435,414 39

COMPARATIVE STATEMENT of amount of Goods issued to Parliament and Departments for the last five fiscal years, 1925-26, 1926-27, 1927-28, 1928-29, and 1929-30.

Department	1925-26	1926-27	1927-28	1928-29	1929-30
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Advisory Board on Tariff and Taxation.....		2,856 57	4,233 55	1,515 95	2,781 21
Agriculture.....	67,985 35	72,294 02	75,777 93	81,197 41	96,527 99
Archives.....	4,904 61	5,818 37	4,759 69	7,356 54	7,953 26
Auditor General.....	4,861 17	4,687 55	4,497 82	5,429 62	4,214 45
Canadian National Railways.....	1,517 21	724 61	182 52	140 64	468 00
Chief Electoral Officer.....	10,419 34	7,551 95	3,283 70	339 61	505 77
Civil Service Commission.....	5,243 56	7,616 69	7,896 66	8,336 87	11,077 32
Exchequer Court.....	375 21	558 30	665 99	814 58	833 69
External Affairs.....	4,271 70	4,534 99	7,880 85	7,515 73	10,312 23
Finance.....	10,355 94	10,301 73	13,399 32	10,674 81	12,618 64
Government Contracts Supervision Committee	951 15	1,108 57	584 07	640 31	221 10
Governor General's Secretary.....	2,910 89	2,842 19	2,218 45	3,227 17	2,367 15
Health.....	10,219 50	9,842 88	10,371 32	11,208 79	
House of Commons.....	10,682 25	21,256 18	18,944 00	17,029 95	22,228 46
Immigration and Colonization.....	26,820 00	25,643 58	24,755 19	32,910 62	31,170 62
Indian Affairs.....	35,588 15	35,557 62	45,648 07	43,165 00	47,123 52
Insurance.....	3,700 20	2,423 97	3,252 09	2,857 03	3,065 76
Interior.....	84,138 39	96,551 68	96,907 13	111,485 21	110,526 01
International Joint Commission.....	41 44	21 77	1 58	20 35	39 92
Justice.....	6,956 91	8,935 05	8,336 03	7,408 38	5,649 73
Labour.....	4,884 44	6,562 16	7,957 26	9,047 80	11,483 34
Library of Parliament.....	638 55	835 43	1,045 90	957 93	1,043 47
Marine.....	36,177 29	49,123 19	58,481 19	54,870 11	66,898 02
Mines.....	18,121 82	17,158 49	19,682 93	23,632 29	20,486 92
National Defence.....	76,057 69	87,399 80	102,971 71	119,885 86	146,761 53
National Gallery of Canada.....	146 77	225 88	186 79	80 67	141 65
National Research Council.....	2,287 61	853 75	1,144 34	1,990 12	1,245 44
National Revenue.....	108,440 16	110,518 53	118,350 30	119,006 32	133,626 00
Patent and Copyright Office.....	9,255 02	9,568 57			
Penitentiaries.....	9,555 26	8,574 39	8,838 60	9,646 32	11,164 93
Pensions and National Health.....					66,039 96
Post Office.....	181,487 63	219,409 87	231,393 14	244,012 96	268,838 66
Privy Council.....	1,213 57	1,564 09	1,561 34	1,725 31	1,268 68
Public Printing and Stationery.....	59,740 43	69,672 29	66,362 82	80,597 06	74,554 52
Public Works.....	35,518 94	31,651 31	35,096 75	37,725 50	42,676 71
Railways and Canals.....	35,685 33	28,167 88	38,056 02	41,714 69	31,972 97
Railway Commission.....	7,306 12	7,161 32	8,555 67	7,758 60	9,311 94
Royal Canadian Mounted Police.....	20,032 77	23,700 13	18,197 92	41,630 49	35,586 68
Royal Mint.....	280 63	351 66	342 90	377 01	287 30
Secretary of State.....	8,392 68	8,337 93	12,068 81	17,371 42	20,698 74
Senate of Canada.....	5,108 47	5,859 57	6,580 93	6,467 63	6,073 87
Soldiers' Civil Re-establishment.....	36,570 01	40,456 82	41,401 53	69,791 23	
Soldier Settlement Board.....	17,462 01	20,306 21	26,876 78	31,488 03	27,700 90
Supreme Court.....	1,257 12	1,207 31	1,901 16	2,454 04	2,564 53
Trade and Commerce.....	34,034 26	45,127 67	56,922 35	63,439 67	85,302 80
Total.....	1,001,597 55	1,114,922 52	1,197,573 10	1,338,945 63	1,435,414 39

6. DETAIL OF EXPENDITURE OF APPROPRIATIONS

<i>Vote No. 23—Civil Government Salaries</i>	\$	81,400 00
Detail of expenditure—		
Salaries paid during the year.....	\$	80,345 00
Unexpended balance.....		1,055 00
	\$	81,400 00
<i>Vote No. 23—Civil Government Contingencies</i>	\$	15,000 00
Detail of expenditure—		
Washing office towels and welfare linen.....	\$	234 00
Office printing.....		5,174 04
Office stationery.....		4,332 79
Travelling expenses.....		1,484 50
Telephone and telegraph.....		494 30
Taxi hire and street car fare.....		133 00
Postage.....		66 00
Newspapers and periodicals.....		234 46
Sundries.....		31 90
	\$	12,184 99
Unexpended balance.....		2,815 01
	\$	15,000 00
<i>Vote No. 212—Printing, binding and distributing the Annual Statutes</i>	\$	12,000 00
<i>Vote No. 425—Supplementary Estimates</i>		2,139 65
	\$	14,139 65
Detail of expenditure—		
English edition—7,000 copies:		
Printing and binding.....	\$	5,630 37
Paper.....		1,947 42
	\$	7,577 79
French edition—1,500 copies:		
Printing and binding.....		2,724 90
Paper.....		496 85
		3,221 75
Expenditure for Annual Statutes—	\$	10,799 54
Session, 1928.....	\$	12,139 65
Amount paid out of appropriations of 1928-29.....		10,000 00
Remainder of expenditure covered by supplementary estimates for 1929-1930.....	\$	2,139 65
Unexpended balance.....	\$	12,939 19
		1,200 46
	\$	14,139 65
<i>Vote No. 213—Canada Gazette</i>	\$	35,000 00
Detail of expenditure—		
52 regular editions and index and 11 extra editions from April 1, 1929 to March 31, 1930—		
Printing and binding.....	\$	25,400 63
Paper.....		4,553 20
Editing and translating—Salaries of the Editor and Assistant Editor.....		4,830 00
	\$	34,783 83
Unexpended balance.....		216 17
	\$	35,000 00
<i>Vote No. 214—Plant—Repairs and Renewals</i>	\$	30,000 00
Detail of expenditure—		
Offices.....	\$	12 27
Paper Stores division.....		15 28
Printing and sundry stores division.....		385 20
Chief Mechanic's division.....		4,304 05
Shipping division.....		19 28
Hand composing division.....		178 13
Monotype division.....		2,856 20
Linotype division.....		5,965 12
Stereotype division.....		162 95

Detail of expenditure—*Concluded*

Press division.....	11,669 80	
Bindery division.....	1,625 24	
Ruling division.....	80 63	
Die stamping division.....	21 60	
Envelope division.....	144 41	
Engraving division.....	69 13	
Divisions generally.....	1,291 07	
Customs duties.....	372 48	
Brokerage.....	51 00	
Freight.....	174 20	
Premium on drafts.....	6 19	
	\$ 29,404 23	
Unexpended balance.....	595 77	\$ 30,000 00

Vote No. 215—*Plant—New*.....\$ 42,544 00

Detail of expenditure—

Mechanical division.....	\$ 3,397 50	
Shipping division.....	3,392 00	
Monotype division.....	1,900 23	
Linotype division.....	9,455 50	
Press division.....	9,713 00	
Bindery division.....	12,947 00	
Customs duty.....	968 50	
Brokerage.....	6 00	
Freight.....	203 39	
Premium of drafts.....	47 27	
	\$ 42,030 39	
Unexpended balance.....	513 61	\$ 42,544 00

Vote No. 216—*Distribution of Parliamentary Documents*.....\$ 50,000 00

Detail of expenditure—

Salaries.....	\$ 36,189 83	
Office printing.....	1,815 90	
Office stationery.....	3,625 12	
Office stationery (Addressograph equipment).....	2,124 31	
Postage.....	3,310 00	
Express and freight.....	583 13	
Char service and supplies.....	1,011 85	
Motor supplies—repairs, renewals, gasoline, oil—20% of cost.....	540 99	
Sundries.....	8 50	
	\$ 49,209 63	
Unexpended balance.....	790 37	\$ 50,000 00

Vote No. 217—*Printing and binding Government Publications for sale and distribution to departments and the public*.....\$ 40,000 00

Detail of expenditure—

Printing, binding, etc.—		
Acts, public and private.....	\$ 3,558 74	
Bills, public and private.....	1,418 79	
Postal Guide and supplements, 1930.....	1,118 02	
Annual Reports.....	5,966 26	
Debates.....	6,977 83	
Votes and Proceedings, etc.....	1,788 43	
Reports of special committees.....	17,946 27	
Members' speeches.....	1,203 83	
Senators' speeches.....	21 09	
	\$ 39,999 26	
Unexpended balance.....	0 74	\$ 40,000 00

Gratuities under Chap. 22, Sec. 56, R.S.C. 1927.....\$ 840 68

Detail of expenditure—death gratuities paid to the widows or legal representatives of—

Charles Bouvrette, hand compositor, died May 12, 1929.....	\$ 346 67	
Miss Albertine Lachance, bindery girl, died May 21, 1929.....	164 67	
Miss Marian Huson, bindery girl, died April 26, 1929.....	164 67	
Miss Valeda Charbonneau, bindery girl, died Dec. 5, 1929.....	164 67	
	\$ 840 68	

7. "CANADA GAZETTE"

COMPARATIVE STATEMENT of Revenue and Expenditure on account of *Canada Gazette* from the year 1874 to the fiscal year ending March 31, 1930.

Year	Expenditure					Revenue			
	Copies Gratis	Sub- scribers	Paper	Printing and Distributing	Editing and Trans- lating	Subscrip- tions	Advertising	Loss	Gain
			\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1874....	1,045	77	1,142 17	2,416 40	119 45	242 20	931 43	2,504 39	
1875....	1,077	85	1,177 17	2,414 00	135 53	242 80	843 74	2,640 16	
1876....	1,049	88	1,195 98	2,301 51	184 80	241 80	578 41	2,862 08	
1877....	1,084	81	1,292 25	2,323 45	141 80	224 75	681 62	2,851 13	
1878....	1,108	79	1,016 65	2,139 48	125 80	268 40	683 47	2,330 06	
1879....	1,115	85	1,195 21	2,293 81	123 90	243 90	739 82	2,626 60	
1880....	1,170	70	1,208 48	2,357 72	106 30	378 44	865 38	2,563 22	
1881....	1,251	68	1,197 38	2,132 20	137 40	353 65	1,028 04	2,085 29	
1882....	1,238	92	1,346 42	2,449 58	199 00	378 44	2,706 28	910 28	
1883....	1,250	109	1,414 24	2,181 48	215 30	367 25	2,181 53	1,262 24	
1884....	1,290	85	1,411 33	2,231 23	148 24	414 67	1,921 82	1,454 31	
1885....	1,321	69	250 00	2,291 74	150 05	289 85	1,264 65	1,137 29	
1886....	1,318	77	2,302 00	2,288 57	62 20	299 70	2,007 82	2,345 25	
1887....	1,366	84	1,797 21	2,537 79	389 10	321 40	2,831 04	1,571 66	
1888....	1,369	81	2,164 85	2,933 57	349 80	307 35	2,909 72	2,231 15	
1889....	1,367	83	1,883 83	2,859 19	103 60	308 60	4,637 49		99 47
1890....	1,429	71	1,758 50	3,128 36	204 00	487 95	2,777 03	1,825 88	
1891....	1,436	84	1,492 62	2,060 45	211 85	139 38	3,293 84	331 70	
1892....	1,429	86	1,480 19	2,069 36	188 98	313 47	3,436 32		11 26
1893....	1,426	84	1,485 71	2,826 07	240 54	306 50	4,612 37		366 55
1894....	1,418	82	1,183 66	2,485 08	265 10	298 73	3,545 87		
1895....	1,425	75	1,153 87	2,704 36	232 50	281 65	4,015 64	89 24	
1896....	1,428	72	1,129 52	2,007 00	259 75	276 65	4,678 69		206 56
1897....	1,492	83	1,129 07	3,003 51	245 40	298 55	4,992 94		559 07
1898....	1,438	87	1,450 21	3,803 11	337 10	312 70	5,574 45		913 51
1899....	1,486	89	940 43	3,273 01	255 30	329 95	3,948 65		296 73
1900....	1,529	96	1,092 72	3,640 17	289 50	350 00	4,679 98	190 14	
1901....	1,528	97	1,349 79	4,267 81	256 60	329 65	4,370 82		7 59
1902....	1,553	97	1,430 89	3,858 33	284 00	361 80	4,451 39	1,173 73	
1903....	1,545	105	1,315 56	3,999 78	253 60	371 85	4,523 25	759 92	
1904....	1,559	116	1,427 48	4,368 81	309 80	430 40	5,667 65		470 56
1905....	1,573	177	1,684 85	5,950 35	364 80	604 12	6,997 50	1,152 44	
1906....	1,559	191	1,629 58	6,909 57	460 85	750 00	7,644 35	398 38	
1907....	1,616	184	1,322 63	4,248 17	329 20	524 27	6,821 20	605 65	
1908....	1,625	200	1,805 72	7,484 48	709 80	762 15	8,472 51		1,445 47
1909....	1,665	185	2,053 45	7,319 99	587 60	721 20	8,684 40	765 34	
1910....	1,692	208	2,158 56	7,983 10	815 80	775 25	14,219 41	555 44	
1911....	1,725	250	2,548 44	9,532 19	918 55	949 85	15,844 95		4,037 20
1912....	1,742	258	2,943 28	9,600 27	438 60	979 15	21,077 11		3,795 62
1913....	1,754	271	4,385 03	19,349 44	3,261 07	1,034 20	30,804 59		9,074 11
1914....	1,791	284	2,720 83	15,477 24	3,842 06	1,090 05	23,062 88		4,843 25
1915....	1,907	293	4,102 28	22,579 68	4,202 56	1,121 45	18,322 04	11,441 03	
1916....	1,901	424	3,018 22	14,978 79	2,905 34	1,505 58	28,357 80		2,112 80
1917....	991	484	4,088 93	14,248 76	2,658 00	1,677 20	35,885 58		8,961 03
1918....	1,000	600	6,966 17	28,214 72	3,764 71	2,335 35	29,671 57	6,938 68	
1919....	1,303	797	5,249 59	28,743 33	3,007 00	3,071 10	26,342 60	7,586 22	16,567 09
1920....	1,278	722	4,693 32	42,850 34	3,268 00	2,746 00	47,579 26	486 40	
1921....	1,259	1,321	11,716 53	29,295 91	2,508 62	5,251 00	56,230 57		17,960 51
1922....	1,037	1,088	8,721 43	31,463 74	3,160 00	4,331 35	73,498 94		34,485 12
1923....	1,086	1,039	5,600 45	29,019 07	3,900 00	4,092 69	78,754 52		44,327 69
1924....	1,122	1,003	4,410 90	26,175 61	4,140 00	3,973 35	68,194 09		37,440 93
1925....	1,006	969	3,537 35	21,137 13	3,290 00	4,522 69	72,900 87		49,459 08
1926....	1,102	698	3,052 08	21,481 34	4,210 00	3,442 45	63,442 70		38,141 73
1927....	1,248	752	3,527 95	21,688 15	4,340 00	3,767 48	64,544 49		38,755 87
1928....	1,364	686	3,664 24	22,451 58	4,589 52	3,407 02	77,835 60		50,537 28
1929....	1,496	554	4,469 67	25,438 25	5,000 00	2,773 25	77,440 71		45,306 04
1930....	1,583	667	4,553 20	25,400 63	4,830 00	3,346 50	90,543 97		59,106 64

*Translating and editing from 1913.

8. CASUAL REVENUE ACCOUNT

Detail of proceeds of Casual Revenue sales made during the fiscal year ending
March 31, 1930

Sales of parliamentary and other publications to Parliament and departments...	\$ 16,081 22	
Sales to the public.....	39,891 46	
	<hr/>	\$ 55,972 68
Sales of <i>Canada Gazette</i> and advertising.....	90,543 97	
Sales of subscriptions.....	3,346 50	
	<hr/>	93,890 47
Sales of paper.....	16,700 04	
Sales of packing cases.....	475 75	
Sales of discarded office equipment.....	564 75	
Sales of waste twine.....	58 58	
Sales of empty gum barrels.....	37 40	
	<hr/>	\$ 17,836 52
Sales of printing to Parliament and departments—Amount received in excess of expenditure during the fiscal year 1929-30.....		13,072 88
Sales of stationery to Parliament and departments—Amount received in excess of expenditure during the fiscal year 1929-30.....		32,666 54
	<hr/>	
Total.....	\$ 213,439 09	

NOTE:—Parliamentary publications supplied during the fiscal year and not paid for by departments when books were closed May 31, 1930, but included in the revenue for the year.—

Agriculture, \$753.35; Civil Service Commission, \$201.43; Exchequer Court, \$1.20; Governor General's Secretary, \$54.75; Insurance, \$60.45; Interior, \$1,125.67; Justice, \$615.50; Labour, \$54.90; Library of Parliament, \$4.50; National Defence, \$338.50; Pensions and National Health, \$520.75; Public Works, \$26.65; Railways and Canals, \$99.00; Railway Commission, \$11.25; Secretary of State, \$41.30; Soldier Settlement Board, \$29.40; Trade and Commerce, \$151.50.....

\$ 4,090 10

STATIONERY BRANCH

OTTAWA, September 12, 1930.

F. A. ACLAND, Esq.,
King's Printer and Controller of Stationery,
Ottawa, Ont.

SIR,—I have the honour to submit for your information the general statement of the accounts of this office from April 1, 1929, to March 31, 1930.—

Inventory, April 1, 1929.....	\$	123,649 08	
Expenditure—Net:—			
Wages.....	\$	104,475 71	
Expense.....		14,896 30	
Stationery stock.....		1,292,604 01	
		<u>1,411,976 02</u>	
Sales—			\$ 1,535,625 10
Departments and Parliament.....		1,435,414 39	
Sundries.....		4,925 25	
		<u>1,440,339 64</u>	
Inventory—March 31, 1930.....		127,952 00	
			<u>1,568,291 64</u>
Profit for the fiscal year 1929.....	\$		<u>32,666 54</u>

Business of this year (1929-30) was considerably in excess of that of the previous year, or of any year save during the war period. Conditions arising from increase of business were met very favourably.

Your attention is directed to the number of packages sent by mail and otherwise:—

Requisitions received.....	24,223
Letters received.....	3,569
Letters sent.....	16,329
Parcels sent by mail.....	10,694
Parcels, cases and bundles sent by Freight and Express.....	6,862

The whole respectfully submitted.

J. W. DRISCOLL,
Superintendent of Stationery.

DIVISION OF DOCUMENTS

F. A. ACLAND, Esq.,
King's Printer and Controller of Stationery.

SIR,—I have the honour to submit for your information the report of this division from April 1, 1929, to March 31, 1930.

The total sales during the fiscal year were as follows: To the Houses of Parliament and departments, \$17,144.22; to the public, \$40,892.29; a total of \$58,036.51.

During the year, 1,445 requisitions were received from departments. The total number of letters received by this division during the last fiscal year was 24,284; of these, 12,177 were requests for publications accompanied by remittance, and 9,738 other letters were answered. Shipping orders issued for the year totaled 17,905.

The activities of the departmental sub post office are shown in the statement following which contains the amount of mail matter handled:—

	1928-1929	1929-1930
Number of letters.....	157,665	191,377
Number of registered letters.....	2,556	2,782
Number of insured parcels.....	8,135	7,602
Mail bags to railway station.....	19,580	19,859
Mail bags to Post Office for final sortation.....	5,145	5,264
	<hr/> 24,725	<hr/> 25,123

The above shows an increase in the number of mail bags over previous year of 398.

The annual Catalogue of Official Publications of the Parliament and Government of Canada, with supplements at intervals, the first issue of which appeared in April, 1928, has been continued, and judging by the demand for copies is of particular service to the public.

A. L. NORMANDIN,
Chief, Division of Documents.

STATUTES OF CANADA, 1929

The following tables show the distribution made, without charge and under regulations of Council, of Statutes of Canada, being 19-20 George V, Third Session, Sixteenth Parliament, 1929, bound in cloth; also the number of sales:

To whom sent	English	French
PARLIAMENT		
Cabinet Ministers.....	18	5
Senators.....	74	20
Members of the House of Commons.....	187	58
	279	83
ALBERTA		
The Lieutenant-Governor.....	1	
Members of the Government.....	7	
Officials of the Provincial Government.....	26	
Police Magistrates.....	81	
	115	
BRITISH COLUMBIA		
The Lieutenant-Governor.....	1	
Members of the Government.....	10	
Officials of the Provincial Government.....	36	
Police Magistrates.....	29	
Stipendiary Magistrates.....	58	
Sheriffs.....	6	
Judges' Chambers.....	1	
	141	
MANITOBA		
The Lieutenant-Governor.....	1	
Members of the Government.....	4	
Officials of the Provincial Government.....	87	
Police Magistrates.....	37	
Sheriffs.....	6	
	135	
NEW BRUNSWICK		
The Lieutenant-Governor.....	1	
Members of the Government.....	6	
Officials of the Provincial Government.....	23	
Police Magistrates.....	42	
Sheriffs.....	8	
	80	
NOVA SCOTIA		
The Lieutenant-Governor.....	1	
Members of the Government.....	5	
Officials of the Provincial Government.....	6	
Stipendiary Magistrates.....	55	
Sheriffs.....	18	
	85	
ONTARIO		
The Lieutenant-Governor.....	1	
Members of the Government.....	9	
Officials of the Provincial Government.....	17	
Deputy Judges.....	2	
Police Magistrates.....	204	
Sheriffs.....	49	
Crown Attorneys.....	28	
Clerks of the Peace.....	3	
	313	

STATUTES OF CANADA, 1929—Continued

To whom sent	English	French
PRINCE EDWARD ISLAND		
The Lieutenant-Governor.....	1	
Members of the Government.....	2	
Officials of the Provincial Government.....	3	
Police Magistrates.....	6	
Stipendiary Magistrates.....	1	
Chief Magistrate.....	1	
Judges' Chambers.....	1	
Sheriffs.....	3	
Prothonotaries.....	2	
	20	
QUEBEC		
The Lieutenant-Governor.....	1	
Members of the Government.....	4	14
Officials of the Government.....	32	107
Magistrates.....	2	13
Sheriffs.....	7	27
Recorders.....	8	38
	54	199
SASKATCHEWAN		
The Lieutenant-Governor.....	1	
Members of the Government.....	6	
Officials of the Provincial Government.....	11	
Police Magistrates.....	11	
Sheriffs and Local Registrar.....	28	
	57	
YUKON		
Members of the Government.....	1	
Officials of the Provincial Government.....	3	
Police Magistrates.....	1	
	5	
JUDGES, LIBRARIES, CONSULS GENERAL, DEPARTMENTAL LISTS, ETC.		
Judges.....	242	43
Libraries.....	206	51
Consuls General.....	31	2
Departmental Lists.....	183	32
Outside of Canada.....	119	4
	781	132
RECAPITULATION		
Parliament of Canada.....	279	83
Province of Alberta.....	115	
Province of British Columbia.....	141	
Province of Manitoba.....	135	
Province of New Brunswick.....	80	
Province of Nova Scotia.....	85	
Province of Ontario.....	313	
Province of Prince Edward Island.....	20	
Province of Quebec.....	54	199
Province of Saskatchewan.....	57	
Yukon Territory.....	5	
Judges, Libraries, Consuls General, etc.....	781	132
	2,065	414
General Distribution.....	2,065	414
Sales.....	2,239	63
Balance on hand.....	621	498
Total number received.....	4,925	975

STATUTES OF CANADA, 1929—*Concluded*

DISTRIBUTION OF STATUTES OF CANADA

The following table shows the distribution of Statutes of Canada, being 19-20 George V, Third Session, Sixteenth Parliament, 1929, bound in 1/2 Calf, also the sales:—

To whom sent	English	French
Ministers, etc.....		
Sales.....	22	9
Balance on hand.....	7	1
	46	15
Number of copies printed.....	75	25
<i>Unbound Copies—</i>		
Sales.....		
Balance on hand.....	5	7
	1,015	493
Number of copies printed.....	1,020	500

STATUTES OF CANADA 1929 (ENGLISH) SEPARATE CHAPTERS

Chapter		Number copies of received	Sales
1	Appropriation Act, No. 1.....	600	162
2	Appropriation Act, No. 2.....	600	162
3	Appropriation Act, No. 3.....	600	162
64	Appropriation Act, No. 4.....	600	162
4	Grand Trunk Act.....	300	125
5	Intercolonial and P.E.I. Railways Employees' Provident Fund Act.....	300	135
6	Militia Pension Act.....	600	234
7	Root Vegetables Act.....	500	73
8	Technical Education Act.....	1,000	171
9	Canada Grain Act.....	8,000	7,081
10	Canadian National Railways Act.....	500	267
11	Canadian National Refunding Act.....	300	146
12	Canadian National Montreal Terminals Act.....	200	182
	Canadian National Railways, line acquired—		
13	Inverness Railway.....	300	153
14	Kent Northern Railway.....	300	131
15	Quebec, Montreal and Southern Railway.....	300	131
16	Quebec Oriental and Atlantic, Quebec and Western Railways.....	300	131
17	St. John and Quebec Railway.....	300	131
	Canadian National Railway Branch Lines—		
18	Alliance to (point near) Youngstown or Dobson.....	200	131
19	Bulwark (point near) to point in Tp. 38 or 39, R. 8, W. 4th M.....	200	135
20	Central Butte or Mawer (point near) to point in Tp. 18 or 19, R. 10, 11, or 12, W. 3rd M.....	200	136
21	Dundas Subdivision to Dunnville Subdivision.....	200	134
22	Garson Branch to Falconbridge Mine.....	200	135
23	Grand Mere to East Burills.....	200	135
24	Hamlin (point near) to Glenbush, Medstead or Robin Hood (point near).....	200	135
25	Hemaruka to Scapa.....	200	135
26	Melfort (point near) to point near Aberdeen.....	200	135
27	Murray Harbour Branch to Georgetown Subdivision.....	200	135
28	Neidpath to Canadian Pacific Railway.....	200	135
29	New Westminster to point on Lulu Island.....	200	135
30	Ridgedale toward The Pas.....	200	135
31	Rosedale southeasterly.....	200	135
32	St. Walburg to Bonnyville.....	200	135
33	Sudbury Branch to point in Tp. of Fairbank.....	200	135
34	Sunnybrae to Guysborough.....	200	135
35	Swift Creek (point near) to Tête Jaune (point near).....	200	135
36	Unity (point near) to point near Provincial Boundary in Tp. 36 or 37.....	200	135

STATUTES OF CANADA 1929 (ENGLISH) SEPARATE CHAPTERS—*Concluded*

Chapter		Number of copies received	Sales
37	Chicoutimi Harbour Loan.....	200	45
38	Civil Service Act (Private Secretaries).....	3,000	124
39	Customs Tariff.....	500	173
40	Dominion Elections Act.....	950	511
41	Excise Act.....	1,300	723
42	Fisheries Act.....	800	194
43	Fish Inspection Act.....	600	41
44	Halifax Harbour Loan.....	200	43
45	Insurance Act.....	700	309
46	Juvenile Delinquents.....	1,000	699
47	Montreal Harbour Loan.....	200	57
48	Northern Alberta Railways.....	200	151
49	Opium and Narcotic Drug Act.....	500	115
50	Pacific Cables, Sale of.....	200	46
51	Penny Bank Act.....	300	113
52	Postal and Railway Service of Canada.....	200	70
53	Precious Metals Marking Act.....	400	236
54	Railway Act.....	1,400	608
55	Reparation Payment Act.....	300	62
56	Returned Soldiers' Insurance.....	350	244
57	Special War Revenue Act.....	1,500	821
58	Supreme Court Act.....	600	73
59	Three Rivers Harbour Loan.....	300	46
60	Vancouver Harbour Loan.....	200	62
61	Water Powers, Alberta, Saskatchewan and Manitoba.....	400	177
62	Yukon Territory, Administration of Justice.....	200	76
63	Yukon Quartz Mining Act.....	700	66
(64)	Appropriation Act No. 4—(See Chap. 1).		
65	Canadian Pacific Railway Company.....	300	53
66	Canadian Pacific Railway Company.....	300	27
67	Esquimalt and Nanaimo Railway Company.....	300	16
68	Essex Terminal Railway Company.....	300	16
69	Joliette and Northern Railway Company.....	300	15
70	Lacombe and North Western Railway Company.....	300	16
71	New Brunswick Railway Company.....	300	17
72	Quebec Railway, Light and Power Company.....	300	17
73	Toronto Terminals Railway Company.....	200	68
74	Canadian Re-Insurance Corporation.....	300	27
75	Chartered Trust and Executor Company.....	300	39
76	Dominion Fire Insurance Company.....	300	43
77	Dominion of Canada General Insurance Company.....	300	187
78	Financial Trust Company.....	300	43
79	National-Liverpool Insurance Company.....	300	37
80	Premier Guarantee and Accident Insurance Company of Canada.....	300	43
81	Protective Association of Canada.....	300	63
82	Railway Employees Casualty Insurance Company.....	300	42
83	Sun Life Assurance Company of Canada.....	300	38
84	Wapiti Insurance Company.....	300	37
85	Wawanesa Mutual Insurance Company.....	300	57
86	Catelli Macaroni Products Corporation, Limited.....	100	13
87	Cobb Connector Company.....	100	13
88	Hayes, Stanley W.....	100	13
89	Hurteau, Jean Baptiste.....	100	14
90	Ketchum, Zebulum Colvin.....	100	13
91	Alliance Nationale.....	200	9
92	Barclays Bank (Canada).....	300	28
93	Bell Telephone Company of Canada.....	300	17
94	Central Finance Corporation.....	300	58
95	Pension Fund Society of the Bank of Montreal, the Molsons Bank Pension Fund, and the Merchants' Bank of Canada Pension Fund	300	23
96	Royal Architectural Institute of Canada.....	300	26
97	Royal College of Physicians and Surgeons of Canada.....	700	514
98	Ukrainian Greek Orthodox Church of Canada.....	1,200	3

STATUTES OF CANADA 1929 (FRENCH) SEPARATE CHAPTERS

Chapters		Number of copies received	Sales
1	Subsides, No. 1.....	100	1
2	Subsides, No. 2.....	100	1
3	Subsides, No. 3.....	100	1
64	Subsides, No. 4.....	100	1
4	Pensions des chemins de fer Nationaux du Canada.....	100	1
5	Caisse de prévoyance des employés des chemins de fer Intercolonial et de l'Île du Prince-Edouard.....	100	1
6	Pensions de la Milice.....	100	3
7	Plante-Racines potagères.....	100	
8	Enseignement technique.....	200	2
9	Grains du Canada.....	300	2
10	Chemins de fer Nationaux du Canada.....	500	16
11	Remboursement du Canadian National.....	200	5
12	Terminus canadiens nationaux à Montréal.....	100	
	Chemins de fer Nationaux du Canada, acquisitions des lignes suivantes:—	100	1
13	Chemin de fer Inverness.....		
14	Chemin de fer Kent Northern.....	50	
15	Chemin de fer Quebec, Montreal and Southern.....	50	
16	Chemin de fer Quebec Oriental, and Atlantic, Quebec & Western..	50	
17	Chemin de fer St. John and Quebec.....	50	
	Chemins de fer Nationaux du Canada, lois autorisant la construction des lignes suivantes:		
18	Alliance près de Youngston ou Dobson.....	50	
19	Bulwark (point près) dans Mun. 38 ou 39, R. 8, 0. 4ième M.....	50	
20	Central Butte ou Mawer (point près) dans Mun. 18 ou 19, R. 10, 11 ou 12, 0. 3ième M.....	50	
21	Subdivision Dundas à subdivision Dunnville.....	50	
22	Embranchement Garson à Falconbridge Mine.....	50	
23	Grand'Mère à Burrills Est.....	50	
24	Hamlin (Point près) à Glenbush, Medstead ou Robin Hood (point près).....	50	
25	Hemaruka à Scapa.....	50	
26	Melfort (point près) jusqu'à près d'Aberdeen.....	50	
27	Embranchement de Murray Harbour à la subdivision Georgetown...	50	
28	Neidpath au Chemin de fer Canadien Pacifique.....	50	
29	New Westminster à un point situé sur l'Île Lulu.....	50	
30	Ridgedale vers le Pas.....	50	
31	Rosedale, Section mixta vers le sud-est.....	50	
32	St. Walburg à Bonnyville.....	50	
33	Embranchement Sudbury dans Mun. de Fairbank.....	50	
34	Sunnybrae à Guysborough.....	50	
35	Swift Creek (point près) à Tête Jaune (point près).....	50	
36	Unity (point près) frontière provinciale dans Mun. 36 ou 37.....	50	
37	Prêt au Port de Chicoutimi.....	500	
38	Service Civil (Secretaires particuliers).....	600	24
39	Tarif des douanes.....	400	2
40	Elections fédérales.....	500	73
41	Accise.....	400	6
42	Pêcheries.....	200	2
43	Inspection du Poisson.....	200	2
44	Prêt au port d'Halifax.....	50	
45	Assurances.....	650	211
46	Jeunes délinquents.....	200	9
47	Prêt au Havre de Montréal.....	100	
48	Chemins de fer de l'Alberta septentrionale.....	50	
49	Opium et drogues narcotiques.....	200	10
50	Câble du Pacifique.....	50	3
51	Caisse de petite économie, (dite Penny Banks).....	200	
52	Service des postes et de la poste ambulante du Canada.....	50	3
53	Poinçonnage des métaux précieux.....	200	2
54	Chemins de fer.....	600	11
55	Paiement des réparations.....	100	13
56	Assurance des soldats de retour.....	200	2
57	Revenus de guerre.....	600	6
58	Cour suprême.....	200	5
59	Prêt au port de Trois-Rivières.....	100	
60	Prêt au port de Vancouver.....	100	
61	Chutes d'eau des Provinces d'Alberta, de la Saskatchewan et du Manitoba.....	100	
62	Territoire du Yukon, administration de la Justice.....	100	
63	Territoire du Yukon, extration du Quartz.....	300	2

STATUTES OF CANADA 1929 (FRENCH) SEPARATE CHAPTERS—*Concluded*

Chapters		Number of copies received	Sales
65	Compagnie du chemin de fer Canadien du Pacifique.....	100	
66	Compagnie du chemin de fer Canadien du Pacifique.....	100	
67	Compagnie du chemin de fer d'Esquimalt à Nanaimo.....	100	
68	Compagnie du chemin de fer Terminal d'Essex.....	100	
69	Joliette and Northern Railway Company.....	100	
70	Lacombe and North Western Railway Co.....	100	
71	Compagnie du chemin de fer du Nouveau-Brunswick.....	100	
72	Compagnie du chemin de fer, d'éclairage et de force motrice de Québec.....	100	
73	The Toronto Terminals Ry. Co.....	100	
74	Canadian Re-Insurance Corporation.....	100	
75	Chartered Trust and Executor Co.....	100	
76	Dominion Fire Insurance Co.....	100	
77	Dominion of Canada General Insurance Co.....	100	
78	Financial Trust Company.....	100	
79	National-Liverpool Insurance Company.....	100	
80	Premier Guarantee and Accident Insurance Company of Canada.....	100	
81	Protective Association of Canada.....	100	
82	Railway Employees Casualty Insurance Co.....	100	
83	Sun Life Assurance Co., of Canada.....	100	
84	Wapiti Insurance Company.....	100	
85	Wawanesa Mutual Insurance Company.....	100	
86	Catelli Macaroni Products Corp. Ltd.....	50	
87	Cobb Connector Co.....	50	
88	Hayes, Stanley W.....	50	
89	Hurteau, J. B.....	50	
90	Ketchum, Zebulum Colvin.....	50	
91	Alliance Nationale.....	100	
92	Barclays Bank, (Canada).....	100	
93	Compagnie Canadienne de Téléphone Bell.....	100	
94	Central Finance Corporation.....	100	
95	Société de la Caisse de retraite de la Banque de Montréal, la caisse de Pension de la Banque Molson et la Caisse de pension de la Banque des Marchands du Canada.....	100	
96	Institut Royal d'Architecture du Canada.....	100	
97	Collège Royal des Médecins et Chirurgiens du Canada.....	100	
98	Eglise Ukrainienne grecque orthodoxe du Canada.....	200	1

The table printed herewith shows the number of copies received of each publication and the general disposition of the same. Many copies of each document, sometimes practically all, are delivered direct to the ordering department; in some cases copies are requisitioned by the Clerk of the House of Commons for distribution to Members of Parliament. Often considerable numbers are mailed direct to addresses supplied by the Clerk of the House and by the department interested. Copies of all publications not confidential in character are mailed to important libraries, etc., under P.C. 1471, a regulation enacted on August 4, 1927, and operative since September 4, 1927. The system indicated applies not only in the case of annual reports but to practically all publications other than the Statutes of Canada.

	Number received	Distribution				P.C. 1471	Sales
		Delivered		Mailing List			
		Parlia- ment	Depart- ments	Parlia- ment	Depart- ments		
ANNUAL DEPARTMENTAL REPORTS, 1929—ENGLISH							
Agriculture, 1929.....	5,400	200	5,025			94	6
Archives, 1929.....	1,361	160	1,000			95	
Auditor General, 1929—Vol. I.....	1,677	450	256		250	95	164
Vol. II.....	1,391	450	156		250	95	154
Separates—							
Agriculture, 1929.....	40						
Archives, 1929.....	100						1
Auditor General, 1929.....	10						
Civil Service Commission, 1929.....	10						
External Affairs, 1929.....	15						5
Finance, 1929.....	10						
House of Commons, 1929.....	10						
Governor General's Secretary, 1929.....	10						
Immigration and Colonization, 1929.....	50						
Indian Affairs, 1929.....	235						
Insurance, 1929.....	10						2
Interior, 1929.....	25						
Justice, 1929.....	15						1
Labour, 1929.....	11						6
Marine and Fisheries, 1929.....	75						6
Mines, 1929.....	25						46
National Defence, 1929.....	50						11
National Revenue, 1929.....	50						33
Pensions and National Health, 1929.....	40						50
Post Office, 1929.....	75						4
Public Printing and Stationery, 1929.....	25						47
Privy Council, 1929.....	10						1
Public Works, 1929.....	75						
Railways and Canals, 1929.....	25						43
Royal Canadian Mounted Police, 1929.....	10						10
Secretary of State, 1929.....	15						1
Soldiers' Civil Re-establishment, 1929.....	10						
Trade and Commerce, 1929.....	25						
Chief Electoral Officer, 1929.....	490	100	100			95	15
Civil Service Commission, 1928.....	638	100	350			94	1
Estimates, Main, 1931.....	2,844	500	1,500			95	47
Supplementary, 1930.....	1,475	1,000	300			94	557
Further Supplements, 1930.....	4,175	2,500	600			94	54
Railways, 1930.....	2,375	1,000	750			189	
Railways, Supplement, 1930.....	1,975	100	1,300			94	20
External Affairs, 1929.....	736	200	150		200	95	
Geographical Board.....	280						7
Immigration and Colonization, 1929.....	2,413	200	2,011			95	6
Indian Affairs, 1929.....	775	100	233		267	95	7
Insurance, 1928—Vol. I, Paper.....	2,266	250	504		322	94	
Cloth.....	5,805		2,390		2,415		
Vol. II, Paper.....	3,506		642		146	94	
Cloth.....	4,004		106		1,313		

	Number received	Distribution				P.C. 1471	Sales
		Delivered		Mailing List			
		Parliament	Departments	Parliament	Departments		
ANNUAL DEPARTMENTAL REPORTS, 1929—ENGLISH—Concluded							
Insurance abstract, 1928.....	6,733	50	1,500	3,010	120	51	
Interior, 1929.....	1,130	150	449	331	95	6	
Labour, 1929.....	2,904	200	2,500		95	3	
Marine and Fisheries—							
Marine, 1929.....	686	200	681	19	95	5	
Fisheries, 1929.....	1,117	200	649	101	94	11	
List of Vessels.....	1,202	100	800		120	81	
Mines, 1929.....	3,310	150	3,000		95	5	
National Defence—Militia and Air Service, 1929.....	626	200	250		94	7	
Naval Service.....	575	200	200		94	7	
National Revenue, 1929.....	900	300	362	38	94	17	
Shipping Report.....	415		149	81	95	3	
Penitentiaries, 1928.....	325	156			94	6	
1929.....	1,750	150	1,382	18	95	4	
Pensions and National Health, 1929.....	3,126	2,700			95	8	
Postmaster General, 1929.....	966	300	458		65	28	
Public Accounts, 1929.....	1,275	500	500		95	33	
Public Printing and Stationery, 1929.....	308	25	100		95	8	
Public Works, 1929.....	635	200	195	55	95	4	
Railways and Canals, 1929.....	800	200	401	49	95	9	
Railway Commission, 1928.....	575	100	248		95	26	
Royal Canadian Mounted Police, 1929.....	1,307	150	685	215	95	30	
Secretary of State, 1929.....	610	200	212		95	10	
Trade and Commerce, 1929.....	900	200	251	255	120	9	
Trade of Canada, 1929.....	1,168	156	150	612	120	124	
Trade of Canada, 1929—							
Calendar Year.....	1,462	150	206	826	95		
Trade of Canada, 1929, Condensed.....	51						
Criminal Statistics, 1929.....	149				94	7	
Weights and Measures, 1929.....	525	150	150		94	7	
Electricity and Gas Inspection, 1929.....	692	150	250		94	104	
Board of Grain Commissioners, 1928.....	915	200	182	373	94	29	
Commissioner of Patents, 1929.....	675		500		94	1	
ANNUAL DEPARTMENTAL REPORTS, 1929—FRENCH							
Affaires extérieures, 1929.....	212	50	100		31		
Affaires des Sauvages, 1928.....	143	50	23	13	32		
Agriculture, 1929.....	1,856	50	1,749	1	32	1	
Archives, 1929.....	620	50	500		32	1	
Budget, 1930.....	50				32		
1930 (Chemins de fer).....	350	250			32	50	
1930 Supplémentaires.....	350	250			32		
1930 Autres supplémentaires.....	350	250			32		
1930.....	350	250			31		
1931.....	350	250			31	3	
Commissaires des brevets, 1929.....	168		100		32		
Commissaires des chemins de fer, 1927.....	185	50	65	10	32		
Commission des pensions, 1928.....	118		50		32		
Commission du Service civil, 1929.....	192	25	100		32		
Commerce, 1928.....	165	50	33	17	32	1	
1929.....	165	50	50		32		
Comptes publics, 1929.....	175	50	50		31		
Défense Nationale—Milice.....	160	50	50		32	1	
Service naval.....	160	50	50		32	1	
Electricité et gaz, 1929, Service d'inspection.....	135	10	50		32		
Immigration et Colonisation, 1929.....	360	50	229	21	32		
Imprimerie et Papeterie publiques, 1929.....	110	10	50		32	3	
Intérieur, 1928.....	185	50	75		32		
Marine et Pêcheries—							
Marine, 1929.....	214	50	100		32		
Pêcheries, 1929.....	262	50	150		32		
Mines, 1926.....	600		80	470	31		
1928.....	1,301	25	774	476	32		
Pénitenciers, 1928.....	285	25	184	16	32		
Pensions et santé nationale, 1928.....	157	50	50		32		
Santé, 1929.....	255		200		31		

	Number received	Distribution				P.C. 1471	Sales
		Delivered		Mailing List			
		Parlia- ment	Depart- ments	Parlia- ment	Depart- ments		
ANNUAL DEPARTMENTAL REPORTS, 1929—FRENCH—Concluded							
Poids et mesures, 1299—Service d'ins- pection.....	100	10	21		4	32	1
Postes, 1929.....	200	50	75			32	
Revenu National, 1928.....	162	50	49		1	32	
1929.....	166	50	50			31	
Secrétaire d'Etat, 1928.....	156	25	55		18	32	
Travail, 1928.....	1,103	50	1,000			32	
Travaux publics, 1929.....	160	50	50			31	
MISCELLANEOUS PUBLICATIONS— ENGLISH							
Abrasives in Canada, 1920.....	150					121	
Accounting Offices.....	175		175				
Advice to Beginners— <i>Re</i> Breeding Stock.....	150					120	1
Aerial Mineral Exploration in Canda....	350					95	
Agriculture Pest Control Act Orders and Regulations No. 22.....	150					118	
Agriculture and Colonization—Trading of Wheat, 1929, App. 6.....	9,609	306	50		3,000	94	
Air Regulations, 1920, with Amend- ments to 1928.....	350					121	3
Amalgamated Builder's Council In- vestigation, 1929.....	250					95	7
Anthrax.....	150					120	
Anthropometry of the Cree and Saulte- aux Indians in Northwest Manitoba	150					120	
Apiarist, Dominion.....	150					120	
Apples, Canadian grown.....	150					121	
Arctic and Western Hudson Bay Drain- age, No. 57.....	150					120	
Arms of Canada, 1930, (3 Ed.).....	400					95	
Arts, R. C. Academy of.....	150					120	
Baby Beef, without Nurse Cow.....	150					120	
Bacon Hog and Hog Grading Hand book on.....	150					127	
Bacteriology, Division of, 1928.....	150					120	
Banff, Kootenay and Yoko National Parks—General Information.....	400					215	
Barley Grades of Western Canada.....	300					240	
Beatty Report—Technical and Profes- sional Services, Royal Commission	3,150					95	2,886
Beef Grading Service.....	300					188	
Beef Grading Service—Guidance to the Consumer.....	150					120	
Beef Grading Service—Its Significance to the Producer.....	150					120	
Bees and how to keep them.....	150					120	
Berne, Convention of Patent and Copy- right—Office.....	250					95	
Blackleg.....	150					120	
Blackleg, Disease of Potatoes.....	125					94	
Blight and Rot of Potatoes, Late.....	150					120	
Boar Grading.....	150					120	
Borer, Round-headed Apple Tree, and its control.....	150					95	
Bovine Tuberculosis, 1929.....	150					95	
Boy's Cattle Breeding Club Policy 1929	150					94	
Britannia Beach Map Area, B.C. No. 293	150					120	
British Family Settlement in New Brunswick, 1929.....	250					94	
British North America Acts and Amend- ments, 1867-1927, paper.....	500						78
British North America Acts, 1867-1919 Appendix.....	900						23
Buttermaking on the Farm, No. 57.....	150					95	
Calf, Feeding Club Policy, Quebec.....	150					95	
Calf, Feeding Club Policy, Maritime Provinces.....	150					95	

	Number received	Distribution				Sales	
		Delivered		Mailing List			P.C. 1471
		Parliament	Departments	Parliament	Departments		
MISCELLANEOUS PUBLICATIONS— ENGLISH—Continued							
Canada, 1930.....	8,500		199		3,801	4,367	
Canada, How to enter.....	150					120	
Canada, The Land we Come from....	150					120	
Canadian Battlefields Memorial.....	670	334				120	
Canadian Historical Association, May 22-23, 1929.....	250					95	
Canal Statistics, 1928.....	1,033	100	750			120	
Canoeing in Canada.....	150					127	
Caponize, How to.....	150					120	
Carillon Programs, 1929.....	500						
Cars, Inspection of Steel Mail.....	200					120	
Case, Supreme Court.....	150					122	
Cereal Division, 1928.....	150					95	
Central Electric Stations, Directory of 1928.....	150					120	
Central America, Markets of.....	150					144	
Census, Vol. 4, 1921—Paper.....	1,099				1,093		
Cloth.....	1,836		300		71	9	
Central Electric Stations, 1927.....	150					120	
Cheddar Cheese, a colour defect.....	150					94	
Cheddar and Process cheese, composition of Canadian.....	150					95	
Chemistry Division, 1928.....	150					118	
Children in gainful operations.....	150					120	
Chief Engineer Report, Dept. of Public Works.....	42						
Cinchona and its commercial preparation, Examination of.....	150					121	
Civil Aviation, 1928.....	725				354	121	
Civil Service Regulations, 1929.....	650					122	
Civil Service Statistics, 1929.....	250					95	
Clay Products in Canada, Manufacture of, 1929.....	150					120	
Close—Grazing.....	150					120	
Coal Statistics, 1928.....	150					94	
Coal and Coke Statistics— January—March, 1929.....	150					121	
April—June, 1929.....	175					120	
July—September, 1929.....	250					94	
October—December, 1929.....	250					95	
Coal Mining Rights, Regulations <i>Re</i> , 1930.....	250					95	
Coal Mines in Canada.....	150					120	
Compass, March of the, and variation tables.....	12						
Convention between Canada and United States (1926).....	350					120	
Contributory Causes of Death.....	150					120	
Cooperative Associations in Canada, 1929.....	250					94	
Copper, Copper-zinc, Nickel copper Mines in Canada, 1929.....	150					120	
Core Drilling of Bituminous Sands of Northern Alberta.....	350					121	
Corn Growing in Manitoba, No. 121....	150					120	
Cow, Grading up the Dairy, by use of Pure-Bred Sires, No. 126.....	150					94	
Criminal and other Offences, Statistics of, 1928.....	249					94	
Currency, Issue and Redemption of....	150					120	
Cutworm, The pale Western.....	250					94	
Dairy Cattle, Record of Performance for Pure-Bred, No. 21.....	150					95	
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Malt and Malt Syrup Powder, 1st Hearing, Ref. 89 and 109.....	1,200	284	79		216	95	33
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Apiculture, service de.....	50					32	
Argot du seigle, l'.....	50					32	
Arrangement postal, Canada et France.....	100					32	
Aviation, rapport sur l', 1928.....	150					32	1
Basse-cour, la préparation des produits de la.....	50					32	
Bétail, la loi des aliments du.....	50					32	
Bétail laiterie, l'alimentation du.....	50					32	
Blé d'Inde au Manitoba, la culture du.....	50					32	
Boîte de beurre, la solidité.....	50					32	
Calcaires d'Ontario et de Québec, les.....	600		81		469	32	
Canada, 1930.....	1,550					32	37
Cercle de jeunes éleveurs de bétail, 1929.....	50					32	
Céréales, service des, 1927.....	50					32	
Céréales, les pourritures des racines des.....	50					32	
Chaponner, comment.....	50					32	
Charbon et coke.....	200		9		91	32	
Charbon symptomatique.....	50					32	
Chimie, service de la, 1928.....	50					32	
Collège militaire du Canada, 1930.....	50					32	
Combustibles, commission fédérale des.....	650		166		432	32	
Concours de Ponte national canadien.....	50					32	
Crème, la richesse de la.....	50					32	
Crème, le traitement de la.....	50					32	
Crème, la neutralisation de la.....	50					32	
Crème à la glace.....	50					32	
Conseils pour la saison—							
N° 44, édition de l'est et Colombie- Anglaise.....	50					32	
N° 44 édition de l'ouest et la prairie.....	50					32	
N° 45, édition de l'est et Colombie- Anglaise.....	50					32	
N° 45, édition des prairies, automne 1929.....	50					32	
N° 46, édition des prairies de l'ouest.....	50					32	
N° 46, édition de l'est et Colombie- Anglaise.....	50					32	
N° 47, édition de l'est et Colombie- Anglaise.....	50					32	
N° 47, édition de l'ouest et des prai- ries.....	50					32	
Directeur général, vétérinaire, 1929.....	100					32	
Dominion et la législation relative à la marine marchande, application.....	250					31	
Douanes, loi des.....	50					32	
Education au Canada, aperçu annuel sur l'.....	50					32	
Exploitation animale, service de l'.....	50					32	
Explosifs, division des.....	650		138		412	32	
Ferme expérimentale, Brandon, Man.....	50					32	
Fièvre charbonneuse.....	50					32	
Filasse industrielle, la production de la.....	50					31	
Fleurs vivaces de pleine terre.....	50					32	
Fourrages secs, la conversion des.....	50					32	
Framboise et sa culture au Canada.....	50					32	
Fromage, consommés du, n° 7.....	50					32	
Fruits et légumes, conserves de.....	100					64	
Géologie, Minéraux du Canada.....	650		181		469		
Horticulture, service de, 1927.....	50					32	
Humidité dans les maisons chauffées.....	50					31	
Hyacinthe, la maladie jaune de la.....	50					32	
I'm Alone, affaire de.....	500	300	100			32	21
Immigration, Procès-verbaux.....	105					32	
Insectes destructeurs et autres fléaux, règlements, n° 18.....	50					31	

13727-7

	Number received	Distribution				P.C. 1471	Sales
		Delivered		Mailing List			
		Parlia- ment	Depart- ments	Parlia- ment	Depart- ments		
MISCELLANEOUS PUBLICATIONS (FRENCH)—Continued							
Jambe noire, maladie de la.....	50					32	
Lait de beurre, consommés, n° 8.....	50					32	
Lait, de la crème, l'essai du.....	50					32	
Lait au sortir de la ferme, l'essai de la qualité du.....	50					32	
Laiterie, loi industrielle.....	50					32	
Lapin, le.....	50					32	
Liste des publications, département de l'agriculture.....	50					32	
Minérale, production.....	50					32	
Moissonneuse, batteuse combinée, 1922- 1928.....	50					31	
Moore, rapport de M. W. A., 1928-29....	300	200	50			32	
Moutons, le baignage des.....	50					32	
Oufs, les avantages du classement des.....	50					31	
Oiseaux, protection des.....	50					32	
Oiseaux, richesse nationale, les.....	50					32	
Opium et drogues narcotiques, loi de...	50					32	
Organisation de l'industrie et du com- merce.....	100					32	
Pacifique, le, par la voie du Pas de la Paix.....	250	150				32	
Peaux, la préparation des, pour le com- merce.....	50					32	
Pêche, règlement de, N.-B.....	50					32	
Pêche particulière, règlements de.....	50					32	
Pêcheries bulletin des renseignements— N° 1.....	50					32	
N° 2.....	50					32	
N° 3.....	50					32	
N° 4.....	50					32	
N° 5.....	50					31	
Pensions des anciens combattants, 1928.....	253	140	60		1	32	
Pétrole et du naphtha, loi d'inspection du.....	50					32	
Plantes cultivées, maladie charbonneuse.....	50					32	
Plantes fourragères, service des, 1928....	50					32	
Plantes fourragères.....	50					32	
Plantes-racines potagères, loi et règle- ment.....	50					32	
Pois, description de types de légumes...	50					32	
Poissons, loi relative à l'inspection des.....	50					32	
Pommes cultivées au Canada.....	50					32	
Pomme de terre, maladie de la.....	50					32	
Porc à bacon, le.....	50					32	
Porc, règlements concernant le classe- ment du.....	50					32	
Programme de carillon.....	150					12	
Quais de l'état, règlements.....	50					32	
Questionnaires des examens.....	350					32	145
Rachitisme, prévention et guérison.....	50					32	
Radio, service de la, 1929.....	50					31	
Rapport sommaire, 1926, partie "C".....	600	81			469	32	
Rapport sommaire, 1927, partie "C".....	620	102			468	32	
Relations industrielles et internationales re assurance contre le chômage, la maladie et l'invalidité.....	50					32	
Renard au Canada, l'élevage du.....	50					32	
Renards, station d'élevage de.....	50					32	
Ressources naturelles du Manitoba.....	100					32	
Revenus de guerre, loi spéciale des, ré- glements sous la.....	50					32	
Rouille de la tige dans l'ouest.....	50					32	
Salaires et heures de travail au Canada, 1920-29.....	1,700				1,650	31	
Santé, conservez sa.....	50					32	
Saumon sockeye, pêche du.....	350					32	
Sauvetage, engin de, règlements.....	50					32	
Service civil, règlements.....	550					32	
Sociétés coopératives, 1929.....	150					32	2
Sous-station expérimentale, Beaver- lodge, Alta.....	50					32	

	Number received	Distribution				P.C. 1471	Sales
		Delivered		Mailing List			
		Parlia- ment	Depart- ments	Parlia- ment	Depart- ments		
MISCELLANEOUS PUBLICATIONS (FRENCH)— <i>Concluded</i>							
Stations expérimentales—							
Cap Rouge, Qué.....	50					32	
Charlottetown, I.P.-E.....	50					32	
Farnham, Qué.....	50					32	
Kapuskasing, Ont.....	50					32	
Kentville, N.-E.....	50					32	
Lacombe, Alta.....	50					31	
La Ferme, Qué.....	50					32	
Lennoxville, Qué.....	50					32	
Morden, Man.....	50					32	
Ste. Anne de la Pocatière, Que.....	50					32	
Sujets reproducteurs.....	50					32	
Tarif de l'impôt:—							
Pétrole brut, cire grasse blanche et paraffine.....	200		7		93	32	10
Aluminium et ses produits, req. 60..	200		69		81	32	
Tige de cuivre, req. 87.....	200		25		75	32	
20 juin, 1928.....	200		25		75	32	
Terminus à Montréal.....	150					32	3
REPORTS OF SPECIAL COMMITTEES (English)							
Banking and Commerce, Special Com- mittee, 1929—							
No. 2.....	1,350	1,000				120	26
No. 3.....	1,350	1,000				120	26
Special.....	1,350	1,000				120	196
Grading of Wheat, Special Committee, 1929—							
No. 11.....	750	500				120	54
No. 12.....	750	500				120	57
No. 13.....	750	500				120	52
No. 14.....	750	500				120	52
No. 15.....	750	500				120	52
No. 16.....	750	500				120	53
No. 17.....	750	500				120	52
No. 18.....	750	500				120	52
No. 19.....	750	500				120	52
No. 20.....	750	500				120	52
No. 21.....	750	500				120	52
No. 22.....	750	500				120	52
No. 23.....	750	500				120	56
No. 24.....	750	500				120	53
Industrial and International Relations, Special Committee, 1929—							
No. 7.....	1,000	750	100			120	38
No. 8.....	1,000	750	100			120	38
No. 9.....	974	750	100			120	61
Railways and Shipping, Special Com- mittee, 1929—							
No. 1.....	750	500				120	35
No. 2.....	750	500				120	35
No. 3.....	750	500				120	35
No. 4.....	750	500				120	35
No. 5.....	750	500				120	35
No. 6.....	750	500				120	35
REPORTS OF COMMITTEES (French)							
Comptes publics—							
N° 1.....	300	250				32	
N° 2.....	300	250				32	
N° 3.....	300	250				32	
N° 4.....	300	250				32	
N° 5.....	300	250				32	
N° 6.....	300	250				32	
N° 7.....	300	250				32	
N° 8.....	300	250				32	
N° 9.....	300	250				32	
N° 10.....	300	250				32	
Relations industrielles et internationales							
N° 7.....	50					32	

PERIODICALS (English)

	Number received	To Depart- ment	To Subs.	Free	P.C. 1471	Sales
Abstract of Public Health, monthly....	230,150	14,272	122,451	.....	1,313	
Agricultural Statistics, monthly.....	84,150	2,445	79,985	2	1,157	16
Apple Supplement, quarterly.....	16,900	2,166	12,691	.....	952	
Bank Statements, monthly.....	3,000	.....	1,368	15	.....	66
Business Statistics, monthly.....	19,911	3,202	14,409	4	1,433	105
Canada Gazette, weekly.....	124,800	.....	110,349	79	.....	6,806
Canada Law Reports, monthly.....	75,173	1,925	65,853	635	1,167	174
Canada Week by Week, weekly.....	131,760	6,456	109,914	.....	.....	.....
Commercial Intelligence Journal, weekly	122,386	2,291	115,040	121	.....	1,345
Labour Gazette, monthly.....	152,480	.....	140,887	.....	1,227	.....
National Revenue Review, monthly.....	70,825	9,070	57,111	11	1,063	85
Natural Resources, monthly.....	123,125	2,837	.....	.....	119,710	.....
Postal Guide, Cloth, yearly.....	400	.....	.....	.....	.....	324
Postal Guide, Paper, yearly.....	1,600	.....	.....	.....	.....	1,421
Railway Judgments, semi-monthly.....	19,510	.....	8,498	8	1,744	1,025
Trade of Canada, quarterly.....	4,905	.....	3,871	5	309	45
Tuberculosis Bulletin, monthly.....	146,800	28,000	70,099	.....	.....	.....
PERIODICALS (French)						
Gazette du Travail.....	22,340	.....	21,690	.....	415	.....
Guide postal, 1930—toile.....	25	.....	.....	.....	.....	18
.....papier.....	75	.....	.....	.....	.....	75
Renseignements commerciaux.....	23,000	.....	15,232	22	.....	84
Ressources naturelles.....	19,595	1,594	15,808	.....	.....	.....
Revue du Revenu National.....	27,500	2,524	11,131	.....	383	4
Statistique agricole.....	8,711	1,157	6,874	.....	383	.....
Tuberculose, Bulletin.....	60,600	.....	.....	52,520	396	.....

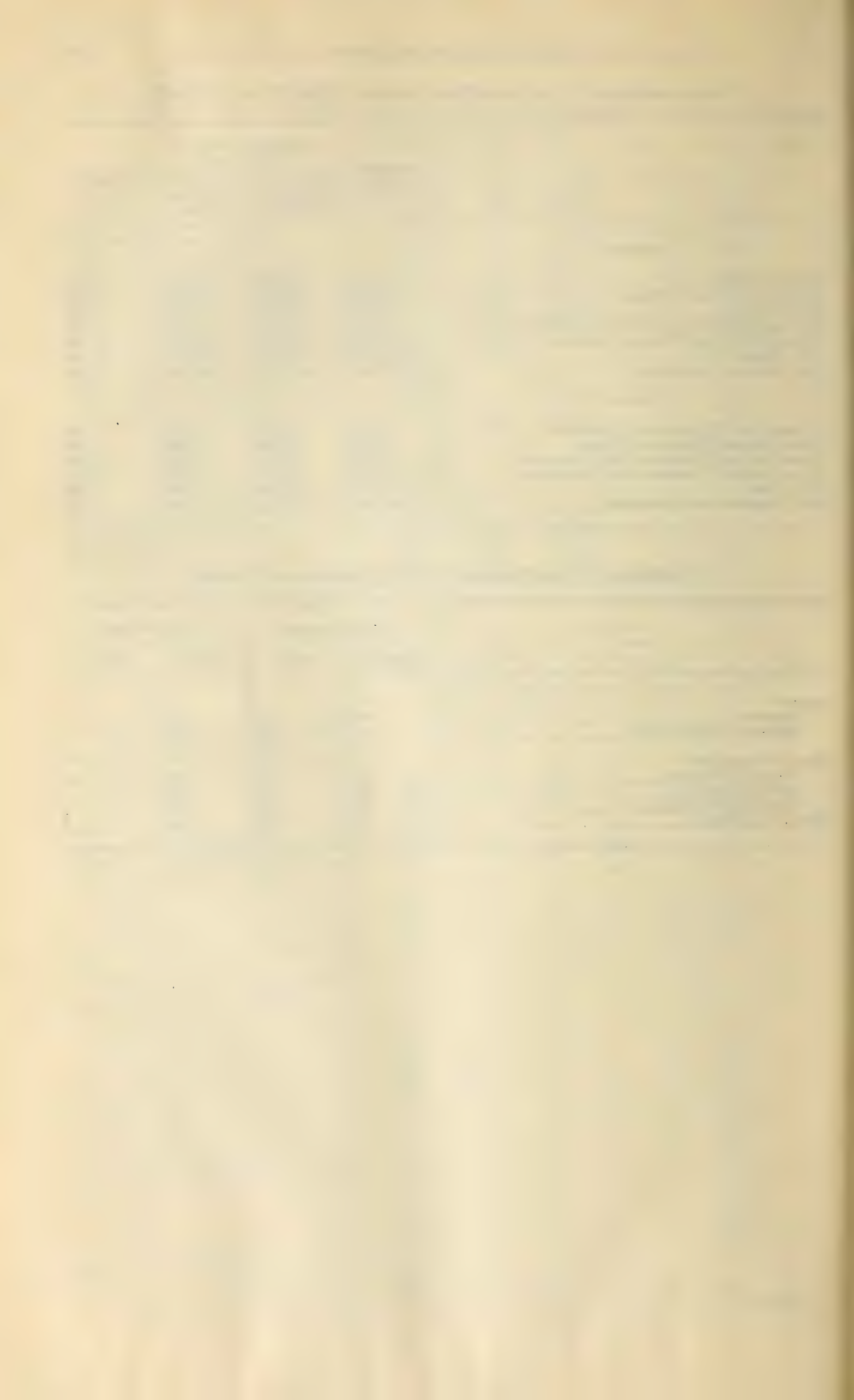
	Number received	Distribution				P.C. 1471	Sales
		Delivered		Mailing List			
		Parlia- ment	Depart- ments	Parlia- ment	Depart- ments		
OFFICIAL REPORTS OF PARLIAMENT							
Bound Volumes (English)							
Debates of House of Commons, 1929—							
Vol. I.....	651		351	32		95	66
Vol. II.....	655		351	32		95	66
Vol. III.....	650		351	32		95	66
Index.....	670		351	32		95	69
Debates of the Senate, 1929.....	537			305		94	20
Journals of the Senate, 1929.....	548		290	49		94	5
Journals of the House of Commons, 1929	539		290	49		97	5
Bound Annual Reports, 1926-27—							
Vol. I.....	125				88		8
Vol. II.....	126				86		8
Vol. III.....	125				88		7
Vol. IV.....	125				88		6
Bound Annual Reports, 1927-28, Vol. V	125				88		2
OFFICIAL REPORTS OF PARLIAMENT							
Bound Volumes (French)							
Débats de la Chambre des Communes,							
1929—							
Vol. I.....	206	131			1	32	1
Vol. II.....	210	131			1	32	1
Vol. III.....	210	131			1	32	1
Débats du Sénat, 1929.....	145	131			1	32	1
Journaux du Sénat, 1929.....	176	104	6		1	32	
Journaux de la Chambre des Communes,							
1929.....	181	104			6	32	
Journaux de la Chambre des Communes,							
Appendices n° 2 et 3, 1928.....	187	104			6	32	
Rapport annuel des Ministères, 1926-27—							
Vol. I.....	40					18	
Vol. II.....	40					18	
Vol. III.....	39					18	
Vol. IV.....	42					18	
Vol. V.....	40					18	
Rapport annuel des Ministères, 1928—							
Vol. I.....	190	25	91		9	32	
Vol. V.....	190	25	91		9	32	

PARLIAMENTARY PAPERS—Part Sessions 1928-29 and 1929-30

	Number received	Distributed Order of Parliament		P.C. 1471
		House of Commons	Mailing List	
ENGLISH				
Senate Debates.....	88,320	42,240	20,816	4,412
House of Commons Debates.....	539,570	90,155	121,260	7,696
Senate Minutes.....	73,968	33,944	19,536	4,412
Votes and Proceedings of House of Commons.....	154,840	73,470	47,163	7,696
Orders of the Day, House of Commons.....	138,625	59,225	40,685	7,696
Bills, Senate.....	1,344,000	1,008,048	154,677	80,750
Bills, House of Commons.....	1,225,022	637,713	64,077	78,960
FRENCH				
Débats de la Chambre des Communes.....	95,590	16,590	14,378	2,449
Procès-verbaux, Minutes du Sénat.....	15,792	10,560	1,444	1,488
Procès-Verbaux, Chambre des Communes.....	36,010	26,070	2,864	2,449
Ordres du Jour, Chambre des Communes.....	25,596	18,370	2,686	2,449
Bills, Sénat.....	316,581	226,839	22,206	10,420
Bills, Chambre des Communes.....	308,494	208,640	25,406	9,324

NUMBER OF SUBSCRIBERS TO PARLIAMENTARY PAPERS

	To Departments		To the Public	
	English	French	English	French
Senate—				
Debates.....	406	.....	111	
Minutes of Proceedings.....	340	28	67	
House of Commons—				
House of Commons.....	838	79	1,183	103
Orders of the Day.....	425	32	90	2
Votes and Proceedings.....	474	35	123	1
Bills of both Houses.....	280	32	123	2



REPORT OF THE CONTROLLER OF PURCHASES

FISCAL YEAR 1929-30

F. A. ACLAND,
King's Printer,
Ottawa, Ont.

DEAR SIR,—I have the honour to submit report of the Purchasing Branch for the fiscal year 1929-30. The total amount of money paid for purchases made by the three divisions of this branch is \$2,493,095.45, sub-divided as follows:—

—	Canadian	United Kingdom	United States	Other Countries	Total Material Purchased	Customs Duty and Brokerage	Grand Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Stationery and Paper Stores.....	1,831,034 20	22,400 22	19,219 21	952 96	1,873,606 59	10,943 61	1,884,550 20
Printing Stores.....	136,120 73		9,047 15		145,167 88	3,802 35	148,970 23
Lithographing, Printing, Binding, Engraving, etc.....	459,137 75			13 05	459,150 80	424 22	459,575 02
Totals.....	2,426,292 68	22,400 22	28,266 36	966 01	2,477,925 27	15,170 18	2,493,095 45

For the above mentioned purchases 1,596 personal accounts were opened; 38,290 invoices were received, audited and certified ready for payment; 30,144 individual orders were issued and 950 special specifications for tenders were prepared. Sale of discarded equipment, machines, etc., amounted to \$5,225.00. Metal dross exchanged for virgin metal, 29,877 pounds to the value of \$2,987.70. Customs entries for import and export, 264; number of express and freight slips audited and cleared for payment, 2,719.

Work performed or supervised by the Lithographing and Engraving Division is as follows: Cheques lithographed, 3,827,799; maps lithographed, 1,489,950; forms, posters, etc., 14,224,941; lithographed money orders, 16,828,900; booklets, 2,004,912; printed cards, tags and labels, 9,613,766; line engravings and halftones, 12,355; electros and dies, 1,840; heliotype prints, 439,107; cartons and envelopes, 4,525,550; binding (books), 358,793; mounting maps, 4,000; pads, 188,250; calendars and tubes, 123,500; tabs and file protectors, 13,632.

GOVERNMENT NEWSPAPER ADVERTISING

The total amount of the invoices audited and passed for payment by this department for Government advertising during the fiscal year ending March 31, 1930, is \$364,436.02; the details of which are set forth in statement on the next page. These accounts were paid by the several departments for which the advertising is done and the amount is therefore not included in the statement of expenditure of this department.

The number of advertising accounts audited is 10,215; orders issued, 8,029, of which 6,334 were for transient advertising and 1,695 for space contract advertising.

Audit of Government Advertising for Fiscal Year ending March 31, 1930

	Ontario		Quebec		New Brunswick		Nova Scotia		Prince Edward Island		Manitoba		Saskatchewan		Alberta		British Columbia		Other Countries		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Agriculture.....	23,509	46							12	39			8	36	26	00			1,744	33	25,300	54
Civil Service Commission.....	877	41	277	40	41	93	105	13	6	38	70	85	43	48	67	30	100	64	17	98	1,608	50
Finance.....															81	84					81	84
Governor General's Secretary.....	200	00																			200	00
Indian Affairs.....	48	44			54	13															936	99
Interior.....	53	50	27,521	54	317	44					187	21	207	14	229	06	202	39	8	32	36,110	61
Justice.....					12	50					1,337	32	3,013	06	2,367	64	775	11	725	00		
Labour.....	19,223	26	2,277	98	29	70	564	59			601	00	315	35	678	84	578	91			24,769	63
Marine and Fisheries.....	1,209	03	888	15	8	00	560	50	45	75			100	00			636	21			3,447	64
Mines.....	585	20	505	69							112	50					100	00			1,304	39
National Defence.....	2,385	83	600	30	34	00	174	59			71	45	109	82	105	71	167	46	21	00	3,670	16
National Revenue.....	31,621	75	530	67	53	15	207	43			22	80	19	86			14	56			32,470	22
Pensions.....	1,696	60	25	55			196	87			445	00	100	00			35	00	489	35	2,988	37
Post Office.....	870	00	1,606	38	541	54	688	48	132	80	148	38	653	62	716	06	203	89	22	50	5,583	65
Public Works.....	25,168	45	16,214	96	1,594	65	2,563	69	63	84	929	77	2,265	39	1,350	04	4,415	72	15	00	54,581	51
Railways and Canals.....																			51	20	2,188	30
Royal Canadian Mounted Police.....	1,391	41	745	69									24	40	4	20						
Soldier Settlement Board.....	1	48													15	12					15	12
Trade and Commerce.....	77,709	62	2,155	34									30	60					*89,740	41	169,635	97
	186,552	44	53,349	65	2,687	04	5,061	28	261	16	3,926	28	6,891	38	5,641	81	7,229	89	92,835	09	364,436	02

*Overseas advertising placed by the Department.

Below is a statement of the total amount of advertising accounts audited by this department from the year 1876 to the fiscal year ending March 31, 1930 inclusive.

CALENDAR YEAR	FISCAL YEAR
1876.....\$	1898-1899.....\$
1877.....12,529 27	1899-1900.....46,317 74
1878.....12,751 56	1900-1901.....50,790 40
1878.....20,583 77	1901-1902.....53,850 75
1879.....39,676 60	1902-1903.....41,078 02
1880.....63,092 50	1903-1904.....57,898 72
1881.....30,015 44	1904-1905.....102,848 11
1882.....50,604 71	1905-1906.....107,812 56
1883.....30,149 31	1906-1907.....89,329 77
1884.....39,401 48	
1885.....33,782 53	
1886.....25,102 83	
1887.....48,596 03	
1888.....44,520 30	
1889.....35,939 47	
1890.....26,102 48	
1891.....27,519 59	
1892.....24,819 54	
1893.....26,704 27	
1894.....26,423 72	
1895.....27,424 68	
1896.....30,760 76	
1897.....35,138 54	
1898 (6 mois. to June 30, 1898).....16,312 58	
	(March 31)
	1907-1908.....141,200 45
	1908-1909.....156,673 50
	1909-1910.....102,841 15
	1910-1911.....144,081 66
	1911-1912.....166,224 26
	1912-1913.....204,762 87
	1913-1914.....247,477 61
	1914-1915.....200,441 19
	1915-1916.....210,818 48
	1916-1917.....295,694 98
	*1917-1918.....496,645 77
	1918-1919.....622,197 21
	1919-1920.....235,663 93
	1920-1921.....183,656 65
	1921-1922.....98,663, 02
	1922-1923.....224,885 07
	1923-1924.....129,611 43
	1924-1925.....77,434 09
	1925-1926.....105,021 81
	1926-1927.....72,961 95
	1927-1928.....110,551 20
	1928-1929.....195,815 16
	1929-1930.....364,436 02

*Includes advertising of Victory Loan, 1918, amount \$184,064.59, contracted for with Canadian Press Association.

J. O. PATENAUDE,
Controller of Purchases.



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